

# Air Conditioning & Refrigeration News

The Newspaper of the Industry

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## Crosley 8-Cu.Ft. Summer Special Lists at \$149.95

**Model Will Have All  
Standard Features Plus  
Premium In Pottery**

CINCINNATI—A new 8-cu. ft. Crosley refrigerator, called the "Summer Special" and carrying a suggested list price of \$149.95, was introduced to distributors at their radio convention here May 24 and 25.

Designed and priced to stimulate summer refrigerator sales, the new unit has all standard Crosley features, including the Shelvador, Freezorcold evaporator, hermetically sealed refrigerating unit, and a removable bottom shelf section for tall bottle storage.

As an added sales stimulant, a set of oven-proof pottery is being offered to buyers of the special refrigerator.

Special promotion is being put back of this refrigerator, with factory-paid advertising in 68 Sunday papers in key cities, and in This Week and American Weekly Sunday magazines. Backing up this drive is a mass coverage campaign using circulars, store displays, window banners, outdoor posters, radio announcements, and other sales helps.

## 348,000 Household Refrigerators Sold To Dealers In April

DETROIT—Reaching a mark only 15,000 below the all-time high record for the month, established in 1937, world shipments of household electric refrigerators by manufacturers to distributors and dealers totaled 348,000 units during April, according to estimates by AIR CONDITIONING & REFRIGERATION NEWS.

Shipments of household refrigerators for the first four months of the year totaled 1,184,000 units, practically equaling those for the same period of 1937, when the industry recorded its greatest sales year, it is estimated. April shipments in that year were 363,000 units.

World shipments this year were more than 70,000 units higher than those for the same month last year, when the estimated total was 275,000 units.

World shipments by 14 manufacturers reporting to National Electrical Manufacturers Association (Philco and Universal sales are no longer included in the total) reached 331,049 units during the month, as (Concluded on Page 2, Column 4)

## M.I.T. Opens Institute on Air Conditioning June 11

BOSTON—First annual New England Air Conditioning Institute will be held at the Massachusetts Institute of Technology here on June 11 and 12. The institute is sponsored by the state division of university extension, in cooperation with five local and national technical organizations.

Representatives of the American Society of Refrigerating Engineers, the American Society of Heating & Ventilating Engineers, American Society of Mechanical Engineers, American Institute of Electrical Engineers, and the Air Conditioning Bureau of Boston will review recent developments in the industry at the two-day meeting.

Willis H. Carrier will be chairman (Concluded on Page 2, Column 3)

## Skytop and Washington Call Engineers

### ASRE To Work and Play At June 9 Get-Together

SKYTOP, Pa.—New developments and practical information in commercial and industrial refrigeration and air conditioning will highlight technical sessions of the twenty-seventh spring meeting of American Society of Refrigerating Engineers at the Skytop Club here June 9 to 11.

Technical sessions will be held in the mornings only, leaving the afternoons free for golf, tennis, and other recreations.

Entertainment program for the meeting will be started on Sunday evening, June 9, with an informal family party, at which group games will be supplemented by a colored movie, "The Lore of the Poconos."

The regular A.S.R.E. summer golf tournament will be played off on Sunday, Monday, and Tuesday afternoons, and the society's summer dinner dance will be held Monday evening.

Convention will open on Sunday afternoon, with meetings of the finance, sections, and test code committees, and a short special meeting of the council. C. R. Logan will (Concluded on Page 11, Column 1)

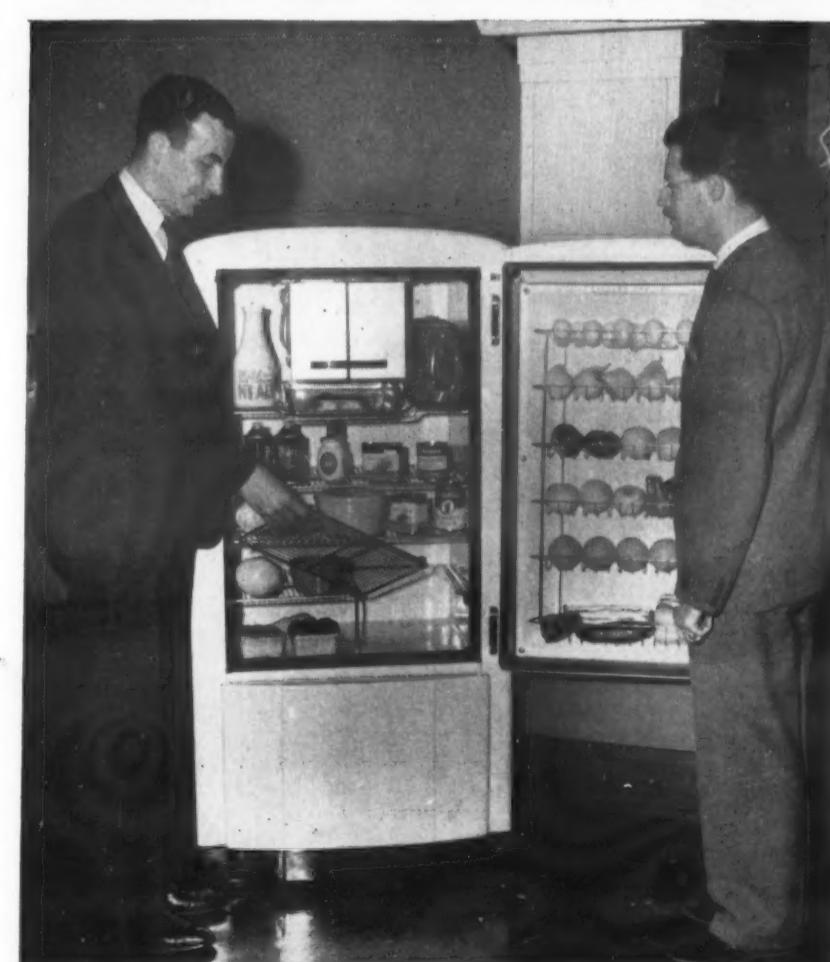
### J. G. Bergdoll Appointed York Chief Engineer

YORK, Pa.—John G. Bergdoll has been appointed chief engineer of York Ice Machinery Corp., it was announced last week by Llewellyn Williams, vice president in charge of engineering for the corporation.

First employed by York as a machinist's apprentice in 1914 in connection with the York high school cooperative course, Mr. Bergdoll has subsequently occupied the positions of draftsman, equipment development engineer, product engineer, and assistant chief engineer.

Mr. Bergdoll was born in Philadelphia in 1898. He graduated in mechanical engineering from Lehigh University in 1920, and is a member of Tau Beta Pi, honorary engineering fraternity. He has been active (Concluded on Page 2, Column 2)

## Crosley's Bid For Summer Sales



George T. Stevens, manager, refrigeration division, The Crosley Corp., and L. Martin Krautter, advertising manager, giving the newly announced Crosley \$149.95 8-cu. Crosley refrigerator the "once over." The new model has standard features and is being introduced this month.

### ASHVE Meets June 17; To Inspect U. S. Cooling

WASHINGTON, D. C.—Heat gain through roofs, summer cooling requirements, psychrometer problems, airflow through registers, and other technical subjects will be discussed by the American Society of Heating & Ventilating Engineers at the Wardman Park hotel here June 17-19.

Social events will include a fishing party on Chesapeake Bay, golfing at the Congressional Country Club, an informal party and show the evening of June 17, sightseeing trips, and the semi-annual banquet and dance the next evening, and a tour through the Federal Bureau of Investigation.

Ladies attending the meeting will enjoy a trip through the White House, a card party, and motor tours to Lincoln Memorial, Lee Mansion, Mount Vernon, and Alexandria.

Members and guests attending the meeting will be given an opportunity to inspect the government central heating plant and air conditioning systems serving various federal buildings.

Papers to be presented the first (Concluded on Page 2, Column 4)

### Mills Introduces Line Of Self-Contained Store Conditioners

CHICAGO—The "Air Perfectioner" line of self-contained store cooling units in 3 and 5-ton capacities has been announced by the Mills Novelty Co. The units are equipped with a Mills heavy-duty compressor, and are rated in accordance with standard A.S.R.E. method.

Housed in an all steel, completely insulated cabinet having a silver bronze finish, the conditioners measure 90 inches high by 21½ inches deep. The 3-ton model is 34½ inches wide, and the 5-ton model is 42½ inches wide.

Front panels on the cabinet are removable; right and left-hand knockouts are provided for ease of (Concluded on Page 2, Column 1)

## Heads Rema



E. A. VALLEE  
Vice president of Automatic Products Co., he is now also president of the Refrigeration Equipment Manufacturers Association (Rema).

### Fairbanks-Morse Is First Manufacturer To Enroll In NACA

KANSAS CITY, Mo.—First manufacturer to join the National Air Conditioning Association is Fairbanks, Morse & Co.

Application for a "National Firm Associate Membership" was recently made to Albert L. Maillard, executive secretary, at the association's headquarters, by J. W. Bostwick, manager of the Fairbanks, Morse & Co. air conditioning division.

The National Air Conditioning Association was formed last January during the Second All-Industry Refrigeration & Air Conditioning Exhibition at the Stevens hotel, Chicago, by a group of air conditioning contractors and dealers interested in advancing the sound development of the air conditioning industry in the interest of public service.

Under the "National Firm Associate Membership," all field employees of Fairbanks, Morse & Co. are entitled to attend meetings of local divisions of the National Air Conditioning Association, and to participate in all national meetings. Associate members are not, however, entitled to a vote.

Jesse W. Page of Page-Williamson, Inc., Carrier distributor at Charlotte, N. C. is president of the National Air Conditioning Association. Other officers of the association are J. N. Sprekelmeyer of General Engineering Corp., Fort Worth, Tex., vice president, and John H. Keller, Mechanical Heat & Cold, Inc., Detroit, treasurer.

### 79,416 Norge Appliances Sold In First Quarter

DETROIT—Factory sales of Norge appliances during the first quarter of 1940 aggregated 79,416 units, an increase of 27% over the 62,390 units shipped during the same period of last year, necessitating a sharp step-up in production, reports H. E. Blood, president. The company now has 6,333 dealers, he said.

An intensive refrigeration advertising program has been started using newspapers in 164 key cities.

### Dallas City Fathers Want Conditioning To Cut Noise

DALLAS, Tex.—Traffic noises streaming through open summer windows may yet be the cause of air conditioning the meeting chambers of the Dallas city council. At least installation of such equipment is under consideration by the council.

## Floor Plans For Dealer Raked at Credit Conclave

### Dealers Who Can't Buy Floor Samples Have No Place, NRDGA Group Hears

CLEVELAND—Labelling as "economically unsound" the practice of floor plan financing for appliance dealers "who don't have enough money invested in their business to buy floor samples," Roscoe R. Rau, executive vice president of National Retail Furniture Association, urged members of the credit management division of National Retail Dry Goods Association, meeting here last week, to strive toward keeping instalment selling "within safe and sensible limits."

"It seems to me that there are sufficient retail outlets in the United States for all appliance manufacturers—outlets with sufficient financing to buy sample stock—without encouragement through finance companies by appliance makers for such credit arrangements," Mr. Rau declared.

"Why should a retail store invest hundreds or thousands or hundreds of thousands of dollars of their own money or stockholders' money or investors' capital to render a legitimate retail service, when it's so easy to get capital to go into the appliance business?" he asked.

"If you do not believe in floor plan financing, then why not pass a resolution against it, and see that the top executives in your various retail institutions file protests with appliance manufacturers?"

Competition for instalment business is no longer confined to other merchants, Mr. Rau declared. In several cities small personal loan companies are making offers to "hole-in-the-wall" appliance, furniture, and other operators to give cash to these "pseudo-dealers" and make deals with customers for time-payment loans, he said. He (Concluded on Page 20, Column 1)

### A. L. Scaife Appointed G-E Merchandising Manager

BRIDGEPORT, Conn.—Arthur L. Scaife, assistant manager of the General Electric appliance and merchandise department's advertising division since the consolidation of all G-E appliance activities at Bridgeport last year, has relinquished his duties in the advertising division to become merchandising manager for the department, reporting to C. M. Snyder, appliance sales head.

The appointment became effective upon Mr. Scaife's return recently from a several weeks' trip to Honolulu, where he assisted in the conduct of a series of sales meetings for W. A. Ramsay Ltd., G-E dis-

(Concluded on Page 11, Column 2)

### 'Kelvinator Unit Volume Greatest Ever'—Pierce

DETROIT—With sales of its 1940 electric refrigerators running more than double those of last year, Kelvinator is experiencing the greatest unit-volume year in its history, Frank R. Pierce, general sales manager, told Kelvinator and Leonard distributors, here last week for a special summer business meeting.

Crediting the increase in business both to the company's "step-up" merchandising plan and to good salesmanship by distributors and dealers, Mr. Pierce told the meeting that Kelvinator had upped production schedules four times since the beginning of the year.

## Heating Optional on Mills Store Coolers

(Concluded from Page 1, Column 3) installation, and a fresh air panel is provided at the rear, below the coil and filter level.

Extra side discharge outlets are provided by simple removal plates, which are sized for standard registers or ducts. The front discharge grille is said to operate with a minimum of air noise.

The 3-ton unit is equipped with a 4-row coil, and the 5-ton unit with a 5-row coil. Steam or hot water coils for winter heating are optional on both models.



### New 16-page Manual

Illustrated suggestions for cutting, bending and flaring small diameter copper tubes. Ask for copy.

THE AMERICAN BRASS CO.  
FRENCH SMALL TUBE BRANCH  
General Office, Waltham, Mass.

## Bergdoll Named To Head York Engineering Staff



JOHN G. BERGDOLL

(Concluded from Page 1, Column 2) in the affairs of the American Society of Refrigerating Engineers, serving on several technical committees.

Since joining York, Mr. Bergdoll has obtained 12 patents, and has been associated with the development of the V-type trunk system of evaporators and "Freon-12" equipment for air conditioning. Recently he has been active in the production of unitary apparatus for air conditioning refrigeration, and has been closely connected with York's U. S. Navy contracts.

## Varied Program Set For M.I.T. Conference

(Concluded from Page 1, Column 1) of the opening symposium, and Prof. C. P. Yaglou of Harvard will lead the afternoon session. Others on the first day's program include J. P. Hare, York Ice Machinery Corp., who will speak on "Refrigeration"; H. V. Hagen, B. F. Sturtevant Co., on "Air Distribution"; Ralph Franklin, consulting engineer, Boston, on "Heating"; and E. Daniel Johnson, Buffalo Forge Co., on "Spray Humidifiers and Dehumidifiers."

Chairman of the morning session on the second day will be Prof. James Holt of M.I.T. Other speakers and their subjects will be: Prof. Philip Drinker of Harvard, "Atmospheric Pollution and Air Cleaning"; Major J. W. H. Myrick on "Smoke Abatement"; W. F. Wells, University of Pennsylvania, on "Disinfection of Air"; and R. B. Brown, Boston Edison Co., on "Lighting in Air Conditioning."

Daniel Ricker, president of the Air Conditioning Bureau of Boston, will preside at the afternoon session, and the following speakers will address the group: John H. Barret, Minneapolis-Honeywell Regulator Co., "Temperature and Humidity Controls"; Paul D. Close, Insulation Board Institute, "Insulation Against Heat, Humidity, and Sound"; St. G. T. Arnold, Boston Edison Co., "Electric Motors for Air Conditioning"; Herman Deid, patent attorney, New York, "Air Conditioning Patents."

## Shipments of 264,703 'Sixes' Tallied By Nema Members During April

The following 14 companies reported sales to the Refrigeration Division of the National Electrical Manufacturers Association (Nema) on household electric refrigerators for April, 1940:

Apx Electrical Mfg. Co., Crosley Corp., Edison General Electric Appliance Co., Inc., Frigidaire Div. General Motors Corp., Gale Products Div. Outboard Marine & Mfg. Co., General Electric Co., Gibson Electric Refrigerator Co., Kelvinator Div.

Nash-Kelvinator Corp., Leonard Div. Nash-Kelvinator Corp., Norge Div. Borg-Warner Corp., Stewart-Warner Corp., Sunbeam Electric Mfg. Co., Universal Cooler Corp., and Westinghouse Electric & Mfg. Co.

The sales of the reporting companies include units manufactured for the following concerns: Montgomery Ward & Co., Potter Refrigeration Corp., and Sears, Roebuck & Co.

### SALES FOR APRIL, 1940

	Domestic	Canadian	Other Foreign	Total World
<b>Lacquer (Ext.) Cabinets Complete</b>				
1. Less than 4 cu. ft.....	1,490	29	478	1,997
2. 4 to 4.99 cu. ft.....	13,619	1,473	2,033	17,125
3. 5 to 5.99 cu. ft.....	14,411	1,354	1,308	17,073
4. 6 to 6.99 cu. ft.....	251,841	4,176	2,249	258,266
5. 7 to 7.99 cu. ft.....	4,463	3	28	4,494
6. 8 to 8.99 cu. ft.....	18,808	157	415	19,380
7. 9 to 12.99 cu. ft.....	1,857	...	...	1,857
8. 13 cu. ft. and up.....	21	...	2	23
9. Total Lacquer .....	306,510	7,192	6,513	320,215
<b>Porcelain (Ext.) Cabinets Complete</b>				
10. Less than 5 cu. ft.....	...	...	10	10
11. 5 to 5.99 cu. ft.....	1,093	29	33	1,155
12. 6 to 6.99 cu. ft.....	6,296	42	99	6,437
13. 7 to 7.99 cu. ft.....	...	...	...	...
14. 8 to 8.99 cu. ft.....	1,644	1	120	1,765
15. 9 to 12.99 cu. ft.....	173	...	9	182
16. 13 cu. ft. and up.....	219	3	22	244
17. Total Porcelain .....	9,425	75	293	9,793
18. Total—Lines 9 and 17.....	315,935	7,267	6,806	330,008
19. Separate Systems, $\frac{1}{4}$ hp. or less...	...	...	1,016	1,016
20. Separate Household Evaporators...	...	25	...	25
21. Total—Lines 18, 19, and 20.....	315,935	7,292	7,822	331,049
22. Condensing Units, $\frac{1}{4}$ hp. or less..	86	...	...	86
23. Cabinets—No Systems .....	12	...	7	19
Value Index* .....	114.0	235.0	62.7	113.0

\*Based on weighted sales for 1934, 1935, and 1936.

## 1940 Household Sales Near All-Time High In Spring Spurt

(Concluded from Page 1, Column 1) compared with 261,511 last year and 338,124 in April, 1937, the high point for that month.

Nema world shipments for the four months totaled 1,126,236 units, as against 1,110,051 in 1937 and 858,810 in 1939.

Effect of the 6 and 8-cu. ft. "specials" on this year's sales is indicated by the fact that, of the April Nema world total, 264,703 units were in the 6-cu. ft. class, and 21,145 in the 8-cu. ft. range. For the first four months, shipments of 6-cu. ft. models amounted to 838,377 units, and those of 8-cu. ft. units to 104,638.

Bottled beverage coolers and ice cream cabinets continued to lead commercial refrigeration shipments for April, Nema world totals showing 7,202 beverage coolers and 6,562 ice cream cabinets sold to dealers and distributors during the period. Commercial condensing units sold separately during the month amounted to 12,135 units.

## ASHVE Holds June Meeting In Capital

(Concluded from Page 1, Column 3) morning of the summer meeting are "Summer Cooling Load as Affected by Heat Gain Through Dry Sprinkled and Water Covered Roofs," by F. C. Houghton, H. T. Olson, and Carl Gutberlet and "The Problems of the Psychrometer," by H. B. Nottage and L. M. K. Boelter.

At the second technical session L. E. Seeley will give "A Study of Changes in Temperature and Water Vapor Content of Respired Air in the Nasal Cavity." "Summer Cooling Requirements of 745 Clerks in an Office Building" will be presented by Dr. W. J. McConnell and M. Spiegelman. The third paper will be "Fever Therapy Locally Induced by Conditioned Air," by Dr. M. B. Ferderber, F. C. Houghton, and Carl Gutberlet.

At the final meeting a paper on "Effect of Room Dimensions on the Performance of Direct Radiators and Convector" will be given by A. P. Kratz, M. K. Fahlenstock, E. L. Broderick, and S. Sachs. G. L. Tuve and D. K. Wright, Jr. will present a paper on "Airflow Through Supply and Exhaust Openings in Buildings."

## Sales By States

States and Territories	Quantity Household	Low Sides	Cumulative
Alabama .....	4,679	12,332	
Arizona .....	1,007*	4,401	
Arkansas .....	2,789	9,753	
California .....	24,527	82,542	
Colorado .....	2,731	7,635	
Connecticut .....	4,117	15,698	
Delaware .....	865	2,738	
District of Columbia .....	1,959*	6,763	
Florida .....	3,390	11,631	
Georgia .....	4,069*	15,340	
Idaho .....	1,322	4,850	
Illinois .....	25,520	85,538	
Indiana .....	7,715	29,751	
Iowa .....	5,894	20,629	
Kansas .....	4,584	11,811	
Kentucky .....	5,483	15,428	
Louisiana .....	4,567	14,721	
Maine .....	1,360	4,635	
Maryland .....	4,396	11,888	
Massachusetts .....	7,683	35,714	
Michigan .....	15,483	52,547	
Minnesota .....	11,171	34,783	
Mississippi .....	2,936	7,733	
Missouri .....	10,990	32,633	
Montana .....	695	3,416	
Nebraska .....	3,128	9,419	
Nevada .....	234*	1,091	
New Hampshire .....	800	2,764	
New Jersey .....	13,813*	40,282	
New Mexico .....	956	2,247	
New York .....	32,041	104,124	
North Carolina .....	5,836	21,594	
North Dakota .....	320*	2,340	
Ohio .....	19,196*	65,384	
Oklahoma .....	3,936	12,597	
Oregon .....	2,377*	11,716	
Pennsylvania .....	25,049	91,433	
Rhode Island .....	934	4,963	
South Carolina .....	3,770	10,250	
South Dakota .....	883	2,732	
Tennessee .....	7,466	21,046	
Texas .....	15,159	51,037	
Utah .....	1,059*	5,361	
Vermont .....	663	2,181	
Virginia .....	3,979	15,884	
Washington .....	4,134	20,869	
West Virginia .....	2,911	11,614	
Wisconsin .....	7,317	25,981	
Wyoming .....	42*	1,064	
Total United States .....	315,935	1,072,892	
Canada .....	7,292	22,236	
Other Foreign (Incl. U. S. Possessions) .....	7,822	31,108	
Total for World .....	331,049	1,126,836	

\*Includes sales and credits.

## Langston Becomes Sole Owner Of Weber Outlet In Dallas As Pierce Moves Out

DALLAS, Tex.—Jack Langston has acquired the interest previously held by Phil H. Pierce in the Pierce-Langston Co., distributor here for Weber Showcase & Fixture Co. of Los Angeles, and has reorganized the company under the name of Jack Langston & Son.

Offices of the new Langston setup will be used as headquarters for the new divisional agency established here by the Weber company to serve the states of Texas, Oklahoma, Arkansas, and Louisiana.

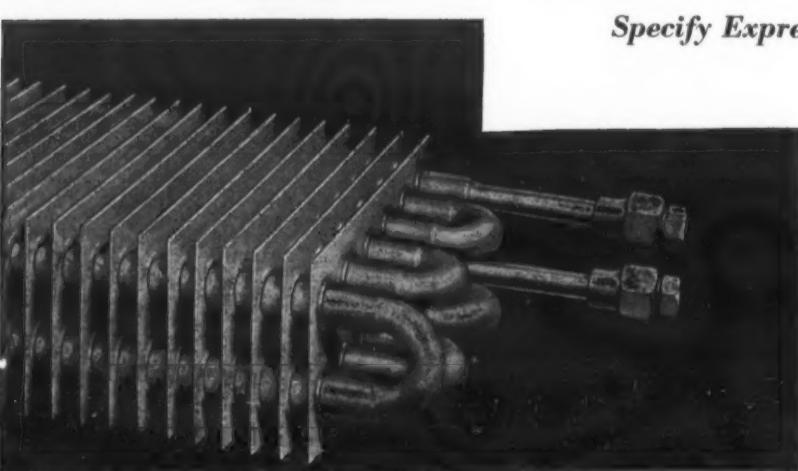
## FEDDERS OFFERS NEW SUPER FAST DELIVERIES TO REFRIGERATION MEN WHO "Need It Yesterday"

With New Production Capacity . . . New Big Factory Stocks of Coils . . . New Branches . . . More Jobbers—the boys here at the Fedders factory and in the field are geared up to give you Service with a Capital "S". Shoot in your orders for Fedders Coils, and you will get a new idea of Fedders' Super Fast Streamlined Service.

Specify Express, Freight or Truck Delivery

**fedders**  
MANUFACTURING CO., INC.  
BUFFALO, N. Y.

Atlanta      Cincinnati      Los Angeles  
Boston      Dallas      New York  
Chicago      St. Louis      Philadelphia  
Detroit                Hamilton, Ont.

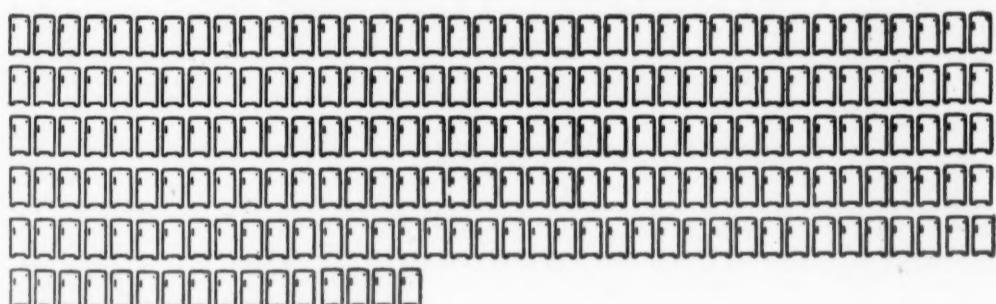


# WORLD'S LARGEST REFRIGERATOR FACTORY PRODUCING AT FASTEST PACE IN HISTORY



**A NEW FRIGIDAIRE**  
*Every 17½ Seconds*

**206 FRIGIDAIREs Per Hour**



**59 CARLOADS Per Day**



Glance at your watch...

Before the second hand makes one revolution, more than three new Frigidaire Refrigerators come off the assembly line! 206 per hour!

Frigidaire dealers and salesmen are making sales history. And to meet their unprecedented demands for more and more products, Frigidaire is breaking every production record!

An average of 59 carloads of Frigidaire products leave the plant every working day!

What better proof that the world's largest refrigerator factory is geared to the needs of its selling organization?

**FRIGIDAIRE DIVISION**

General Motors Sales Corporation, Dayton, Ohio

## IT IS FRIGIDAIRE FOR '40!

## 163 Ohio Firms Combine Forces In Five-Page Ad

COLUMBUS, Ohio—A total of 163 electric refrigerator dealers and distributors participated in a concentrated, cooperative newspaper splash covering five pages of a recent edition of the Columbus Dispatch.

This promotion did not take the form of a special section or edition, but was incorporated into the regular paper. It combined the usual run of news-publicity stories and pictures featuring various makes of refrigerators, the companies manufacturing them, and the merchandising organizations handling them in this area, with advertisements representing distributors and dealers in the Columbus trading area.

Larger dealers had advertisements of their own, while dealers from the smaller towns and cities through the Dispatch circulation area were represented principally in the cooperative advertisements of distributors and manufacturers. Many of these smaller dealers thus mentioned were located in towns 100 miles or more from Columbus.

Largest individual dealer advertisement was from Budd & Co., jewelry store which also handles appliances, featuring a \$112.75 Leonard and an \$88 "Budd Special" of anonymous manufacture. A "dollar down and a dollar a week" purchase plan was offered on either model.

Eleven major refrigerator manufacturers were represented, with Norge, Crosley, General Electric, Kelvinator, Hotpoint, and Gibson all sponsoring large advertisements.

## 2,683 Units Sold In Georgia Power Drive

ATLANTA—Paced by refrigerator sales of 2,011 units, Georgia Power Co.'s spring "Quick Silver" campaign on refrigerators and ranges went over quota by almost 12%, with 2,683 units being installed in users' homes against a goal of 2,400 for the two appliances.

Refrigerator sales during the drive were most than 33% above the 1,500 units set for the campaign, but electric range sales fell below anticipations, 672 installations being reported against an anticipated 900 units.

Atlanta division of the company was the only one which exceeded both range and refrigerator marks set for it, sales in this territory totaling 688 refrigerators, against a quota of 540 units, and range sales amounting to 242, against a 230-unit quota.

W. H. Sharpe of the Atlanta office led salesmen during the drive with 33 refrigerators and 13 ranges, 240% of his individual quota. H. D. Hudson, also of Atlanta, sold 200% of quota, and H. L. Jennings of Inman Park (Atlanta) was third highest with 188% of quota.

### S. Carolina Firm Moves

MANNING, S. C.—Clarendon Furniture Co., local dealer in Gibson refrigerators and Monarch electric ranges, has moved to new and larger quarters here. The firm is owned and managed by Rex Josey.

## Planes Over Florida! —Just Utility Men Shooting For Sales

ORLANDO, Fla. — With air strength coming into its own in this country, salesmen of Florida Public Service Co. here are learning to be "commercial pilots" in a three-month sales campaign based on aviation.

In shooting for his sales "wings," the salesman is awarded a certain number of "flying hours" for each Electrolux refrigerator sold. If it is a cash sale, so many extra "hours" are awarded. After the salesman qualifies as a "solo pilot," he gets an extra bonus for every "hour" he "flies."

In addition to the awards and prizes for the salesmen-pilots, each customer who buys a complete gas kitchen is rewarded with an air trip to Jacksonville and return. The customer purchasing a refrigerator, gas range, and Monel metal water heater gets a plane ride to Miami and return.

As a tie-in with this campaign, the utility is sponsoring a model plane building contest for boys. Over 70 planes were entered in the contest during the first six weeks of the campaign, and were on exhibition in the utility's display windows.

Showrooms of the utility have taken on the look of an airport, with a display of aviation motors and equipment carrying out the theme of the campaign.

## Nebraska Dealers 'Vote For 4 In Forty' In Drive To Top \$600,000 Sales Quota In Four Months

OMAHA, Neb.—A "Vote For 4 in '40" cooperative campaign designed to sell \$600,000 worth of appliances in four months got under way here last month at a meeting of dealers and dealer salesmen in the Nebraska Power Co. building. The campaign will be centered on sales of the "big four" appliances—refrigerators, ranges, water heaters, and roasters.

Sales quotas for the four appliances in the four-month campaign ending Aug. 25 are:

	Units	Value
Refrigerators .....	3,840	\$480,000
Ranges .....	570	74,100
Water Heaters ..	940	23,600
Roasters .....	295	18,800

Increased dealer activity during the campaign calls for traffic-pulling store displays and demonstrations plus extensive advertising to be given the four appliances during the campaign.

Tieing-in with dealer advertising, Nebraska Power Co. has scheduled newspaper and outdoor poster space to aid in pushing the campaign over the top. Advertising in the Omaha World-Herald and in outstate weeklies will total 14,000 lines.

Five times each week Martha Bohlsen's "Homemakers Club of the Air" will be heard over stations WOW, KOIL, and KOWH. These programs will stress the outstanding features of refrigeration, electric cooking, and electric water heating. Cooking schools will also be conducted by the home service department of the utility.

In May the utility will distribute a broadside on the four appliances to the homes in its territory.

Dealer salesmen will be provided with personal presentation folders on each of the four appliances to use in contacting prospects.

During the campaign a new prospect report system for dealers has been instituted by the utility. In making calls, Nebraska Power salesmen and home service advisors will note appliance prospects and report these to the utility office. The prospect reports will then be given to dealers in the territory. If the prospect has expressed preference for a dealer, the prospect card will be turned over to the designated dealer.

Dealers will then be given two weeks in which to contact the prospect and make the sale. At the end of this period, results will be checked by the utility's dealer advisor and reported to the utility salesman who turned in the prospect.

If no sale has been reported after the designated period, the dealer advisor will do one of three things:

1. If the dealer has not followed and attempted to sell the prospect, this prospect will be turned over to some other dealer in order to keep the prospect "live."

2. If the dealer reports the prospect "not interested," the utility salesman who reported the name will call again to check. If he reports the prospect still interested, the name will be turned over to another dealer.

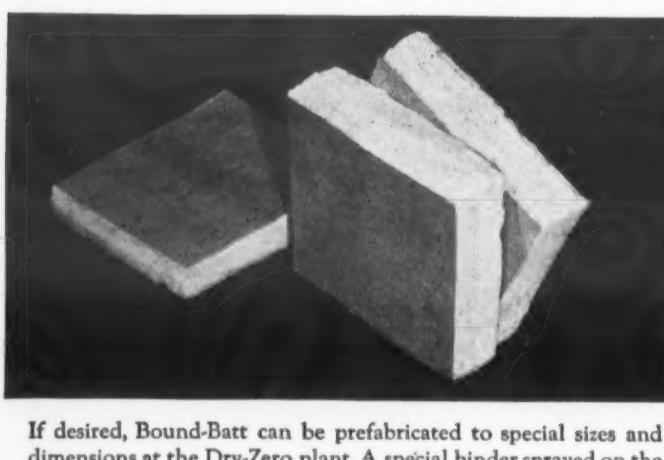
3. If the dealer reports that he has not had enough time to close the sale but that the prospect is still "live," he will be given an additional two weeks to close the sale.

# Reduce your refrigerator assembly costs with Dry-Zero Bound-Batt

Now you can get Dry-Zero, the most efficient commercial insulant known, in a form that is even less expensive to install. The new Bound-Batt reduces assembly time and costs because it can be readily cut to the shape of your box, it is stiff enough to handle easily, and yet is flexible enough to fit irregular contours. In the Bound-Batt form, the over-all cost of Dry-Zero is no more than ordinary insulations.

Bound-Batt is manufactured by an entirely new process which binds the fibers together into a resilient yet easily handled batt. The binder does not impair its insulating effectiveness. Write, Dry-Zero Corporation, 222 North Bank Drive, Chicago.

### BUY IT CUT TO SPECIFICATIONS—OR CUT IT ON THE JOB



If desired, Bound-Batt can be prefabricated to special sizes and dimensions at the Dry-Zero plant. A special binder sprayed on the edges keeps the insulation in place for easy handling.

Bound-Batt may be purchased in rolls, stored until needed, and then cut to size with a knife blade band saw or an ordinary knife. This saves prefabrication costs.

## DRY-ZERO INSULATION

### 1. HIGH EFFICIENCY

Dry-Zero has a "k" factor of 0.24—the lowest of any commercial insulant.

### 2. LONG LIFE

Maintains its high efficiency indefinitely. Does not rot, pack, or absorb moisture.

### 3. LOW COST

In the new Bound-Batt form, Dry-Zero is lower in first cost, less expensive to apply.

**THREE ADVANTAGES**

## Magoni Heads Appliance Sales At Barnett's

NEW ORLEANS — Robert J. Magoni has been appointed sales manager of the electrical appliance department at Barnett's department store here. He has been with the firm 18 years.

The firm reports that refrigerator sales for the first five months of this year are up 100% over that period last year. The increase is attributed to the sales drive of eight salesmen selected by an "elimination" method from applicants for sales positions.

## Jersey League Promotes World's Fair Exhibits

NEWARK, N. J.—Mailing of four counter and window pieces featuring the "Street of Yesterday and Tomorrow" at the electric utilities exhibit at the New York World's Fair, and also a liberal supply of personal service courtesy cards for the Fair, to each of 500 electrical appliance dealers in New Jersey is planned by the New Jersey Council of Electrical Leagues.

Dealers are to be asked to prominently display the window and counter pieces, and to distribute the courtesy cards among their salesmen, who in turn may pass them on to customers or prospects planning to visit the Fair.

## Dallas Dealer Liquidates Small Appliance Stock

DALLAS, Tex.—First step taken by North-Bell Hardware Co. in its program to liquidate its small appliance and housewares activities and concentrate its efforts on the merchandising of major appliances and hardware was a highly successful "Clean Sweep" sale which resulted in the disposal of 75% of the stock involved.

In addition to the small appliances, kitchen ware, and dishes moved during this sale, the store also sold a considerable portion of its stock of outmoded refrigerators. Stock not disposed of during this sale is to be sold in a job lot, if possible.

The company plans to completely revamp its appliance department in order to make use of the nearly doubled floor and display facilities made available through clearance of its other lines, according to A. L. Van Buskirk, manager.

## Two Dealers 'Plug In' on National Radio Program

JAMESTOWN, N. Y.—Two Westinghouse dealers here have worked out a novel tie-in with "Musical Americana," national Westinghouse radio program. Lindquist Hardware Co. precedes the network program with a one-minute spot announcement, and Abraham & Bigelow department store follows the program with a similar announcement. The dealers remind local listeners that Westinghouse refrigerators and ranges can be seen at their stores.



## Westinghouse TRU-ZONE COLD

...WITH "TRUE-TEMP" CONTROL

is the **SMASH** refrigerator feature of 1940!

MORE  
PROFIT!

PER SALE FOR YOU!

Price leaders ordinarily mean smaller units of sale and smaller profits for retailers. Westinghouse answers this challenge with a host of PLUS features. These enable dealers to sell more of the higher priced models —thus earning a greater profit per sale.

Again Westinghouse brings you a PLUS feature—a BIG PLUS FEATURE, that makes prospects stop, look and BUY! New *Tru-Zone Cold*, made possible with exclusive *True-Temp Control*, brings users complete food protection of a new type—**SUPER-MARKET REFRIGERATION** for the home.

Every housewife knows that her food store keeps different foods *differently*—often in as many as four or five separate refrigerators. Some need more cold; some less. Some need high humidity; others none at all. *Only Westinghouse* duplicates these varied conditions in her home—and you can prove it.

No wonder Westinghouse retailers of all types report refrigerator sales at a new high level. If you're not getting your share of these extra profits, you'd better write or wire for complete information today! Address Westinghouse Electric & Manufacturing Company, Dept. 146, Mansfield, Ohio.

**SUPER-MARKET  
REFRIGERATION  
for the Home!**



EXCLUSIVE  
**True-Temp  
Control**  
MAKES TRU-ZONE  
COLD POSSIBLE!

With new *True-Temp Control* you can regulate the cold in the refrigerator just as you do the speed of your automobile—not in meaningless letters or symbols, but in definite figures (degrees, Fahrenheit). Moreover, once set, the *True-Temp Control* holds food temperatures *true* despite changes in food load or kitchen temperature.

DR-4105

# Westinghouse Refrigerator

## The Pacemaker.. now Faster for '40!

**7,202 Beverage Coolers, 6,562 Ice Cream Cabinets Shipped In April****By Nema Commercial Equipment Manufacturers**

The following report of commercial refrigerating equipment sales for April, 1940 was made to the Commercial Refrigeration Section of the National Electrical Manufacturers Association (Nema) by the following 16 companies:

Baker Ice Machine Co., Inc., Brunner Mfg. Co., Carrier Corp., Crosley Corp., Frigidaire Div. General Motors Corp., General Electric Co., Gibson Electric Refrigerator Co., Kelvinator Div. Nash-Kelvinator Corp., Merchant & Evans Co.,

Norge Div. Borg-Warner Corp., Servel, Inc., Uniflow Mfg. Co., Universal Cooler Corp., Vilter Mfg. Co., Westinghouse Electric & Mfg. Co., and York Ice Machinery Corp.

	SALES FOR APRIL, 1940		Domestic		Canadian		Other Foreign		Total World	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
1. Bottle Water Coolers—Complete.....	254	\$ 17,650	2	\$ 132	40	\$ 2,835	296	\$ 20,617		
2. Pressure Water Coolers—Complete.....	1,759	173,393	38	3,708	51	4,549	1,848	181,850		
3. Water Coolers—Low Side Only.....	100	8,913	...	...	2	109	102	9,022		
4. Ice Cream Cabinets—Complete.....	6,262	980,822	227	34,831	73	9,069	6,562	1,024,722		
5. Ice Cream Holding Cabinets Only (Remote).....	281	41,944	5	814	3	381	289	43,139		
6. Bottle Beverage Coolers—Complete.....	6,590	614,682	497	43,137	115	12,409	7,202	670,228		
7. Beverage Coolers (No High Sides).....	90*	10,080*	...	...	2	95	92	10,175		
8. Milk Coolers—Complete.....	11	1,833	...	...	...	...	11	1,833		
9. Milk Cooling Cabinets (No High Sides).....	98	4,861	...	...	...	...	98	4,861		
10. Commercial Evaporators—Not Reported Above (Including Cold Diffusers, Brine, and Other Spray Evaporators, Etc.).....	2,500	128,668	486	12,906	374	14,900	3,360	156,474		
11. Condensing Units Less Than $\frac{1}{2}$ Hp.....	3,212	142,456	74	3,224	652	16,112	3,938	161,792		
12. Condensing Units $\frac{1}{2}$ Hp.....	3,138	193,162	61	3,950	158	10,427	3,357	207,539		
13. Condensing Units $\frac{1}{2}$ Hp.....	2,021	168,085	52	3,542	100	9,077	2,173	180,704		
14. Condensing Units $\frac{1}{2}$ Hp.....	1,005	110,543	27	3,042	79	8,924	1,111	122,509		
15. Condensing Units 1 Hp.....	648	90,320	18	2,515	30	4,284	696	97,119		
16. Condensing Units $\frac{1}{2}$ Hp.....	347	59,573	13	2,326	36	6,098	396	67,997		
17. Condensing Units 2 Hp.....	188	39,158	5	1,094	19	3,990	212	44,242		
18. Condensing Units 3 Hp.....	123	36,525	1	194	30	5,826	154	42,545		
19. Condensing Units 5 Hp.....	53	20,050	...	...	3	1,064	56	21,114		
20. Condensing Units $\frac{1}{2}$ Hp.....	11	5,804	...	...	4	2,505	15	8,309		
21. Condensing Units 10 Hp.....	19	13,852	1	407	2	1,146	22	15,405		
22. Condensing Units 15 Hp.....	1	1,099	...	...	...	...	1	1,099		
23. Condensing Units 20 Hp.....	2	2,740	...	...	...	...	2	2,740		
24. Condensing Units 25 Hp.....	...	...	...	...	...	...	...	...		
25. Condensing Units 30 Hp.....	...	...	...	...	...	...	...	...		
26. Condensing Units 40 Hp.....	2	3,249	...	...	...	...	2	3,249		
27. Condensing Units 50 Hp.....	...	...	...	...	...	...	...	...		
28. Total—All Condensing Units (11 to 27).....	10,770	886,616	252	20,294	1,113	69,453	12,135	976,363		
29a. Condensers—Sold Separately Shell & Coil or Shell & Tube.....	1	513	...	...	...	...	1	513		
29b. Evaporative Type .....	10	3,752	...	...	6	829	16	4,581		
30. Total—All Commercial Refrigeration.....	...	\$2,873,727	...	\$115,822	...	\$114,629	...	\$3,104,178		

\*Includes sales and credits.

**'Frog Storage' Cabinet  
Uses Brine System**

LINCOLN, Neb.—A 4 x 8-ft. refrigerated box for storage of live frogs used in the conduct of experiments with digitalis has been constructed at the University of Nebraska here for use in the laboratories of the school's college of pharmacy.

This cabinet is hooked up with a Freas circulating brine unit and another refrigerated tank made by the Freas Thermo-Electric Co. of Irvington, N. J. The brine tank is powered with a 1-hp. General Electric motor. A  $\frac{1}{2}$ -hp. motor is used to drive brine through coils mounted in the top of the cabinet.

The cabinet itself is heavily insulated and thermostatically controlled. A temperature of 10° C. is maintained to keep the frogs dormant. The nine trays hold approximately 1,200 frogs.

Water is run through the box, over the coils, and into each tray by means of rubber tubing. A drain tube from each tray runs into the sewer.

An older box, made especially for this purpose by the Freas organization, also depends upon running water over brine coils to maintain a desired temperature. Another  $\frac{1}{2}$ -hp. G-E motor is used for circulation, while an electric heating apparatus is installed in the box and warm water is driven in by a  $\frac{1}{2}$ -hp. G-E motor when needed to animate the frogs at the conclusion of the experiments.

**Norton Job To Natkin**

NORTON, Kan.—Contract for installation of an ice making plant at the State Sanitarium for Tuberculosis here has been awarded to Natkin Engineering Co., Kansas City, Mo.

**Warren Dealers Named  
In Midwest States**

CINCINNATI—Several new agents for Warren display cases and coolers in Ohio and surrounding states have recently been appointed. J. Russell Oder is supervisor for the territory. New appointments include:

C. G. Lawson, Huntington, W. Va.; R. L. Cole, Portsmouth, Ohio; Thos. E. Corwin, Lebanon, Ohio; Frank Huffman, Columbus, Ohio; F. W. Davis, Anderson, Ind.; E. H. Gerber, Fort Wayne, Ind.; H. F. Schmidt, Lexington, Ky.; R. H. Tydings, Jr., Louisville, Ky.; Carl Harasti, Detroit; M. J. King, Pittsburgh; C. M. Robinson Co., Cincinnati.

**New Dallas Dealership  
To Handle Commercial**

DALLAS, Tex.—Headed by Howard T. Francis, formerly of Grand Prairie, Tex., the Francis Equipment & Supply Co. has been established in Dallas to handle air conditioning, commercial refrigeration, and electric motor equipment and supplies.

Associated with Mr. Francis is Ernest Rieke, formerly of Kansas City, Mo., and E. C. Tunnel, formerly with Firestone.

**Alabama Dairy Plant  
Frigidaire Equipped**

DECATUR, Ala.—Refrigeration for the new plant of Alabama Dairy Products Co., Inc., recently opened here, was installed by Flint Refrigeration Co. of Birmingham, Frigidaire dealer. This consists of a 3 hp. "F-12" forced air unit installed in a room 16 x 10 x 8.9 feet. The temperature is maintained at 42° F.

# IMPERIAL leads again with the new TRIPLE SEAL FLARE FITTINGS

— the fitting that remains leak-proof even when  
the seat has been badly nicked or marred

HERE is one of those "Why didn't someone think of that before" developments which is going to set a new standard in fitting practice.

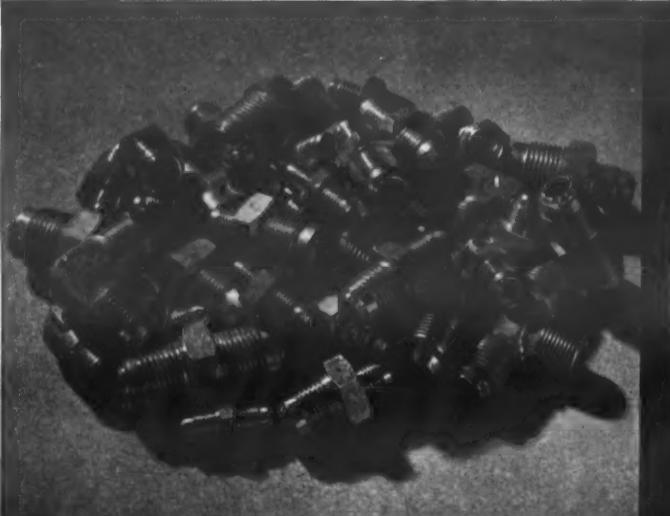
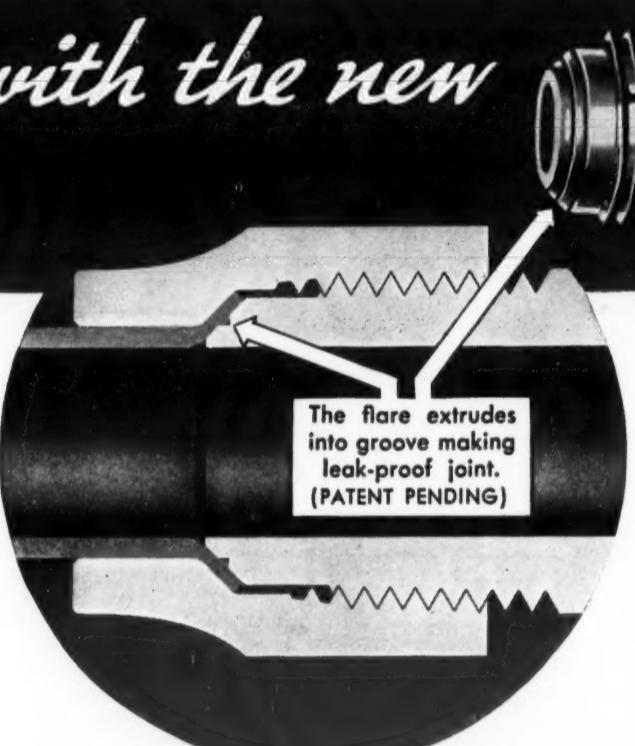
The new Imperial Triple-Seal Fitting is the same excellent fitting you have previously used, but with an improvement that is as outstanding as it is simple.

Every Imperial refrigeration flare fitting is now being made with a groove in the seat as shown in the diagram above. When the flare is drawn up against this groove the copper is actually extruded into the groove making a self-seating joint that will be tight even though the face of the seat may have been damaged. As a result it is unnecessary to reface these fittings if the seat becomes nicked.

If you had seen the torture tests which these Imperial Triple-Seal Fittings had to undergo, you would understand why we say this new development is an outstanding contribution to fitting practice. Battered almost beyond recognition these fittings were all subjected to 250 lbs. Freon pressure. In every case the fittings stood up under this pressure without the slightest trace of leakage. Conventional fittings without the triple seal groove had to be refaced before they would hold the Freon.

The self-seating feature of Imperial "Triple-Seal" Fittings assures a tight joint that will stay tight under the most severe service conditions.

Ask your jobber for Imperial Condensed Catalog No. 88-J, which covers these Triple Seal Fittings and other Imperial products.



On your next job  
be sure and order  
**IMPERIAL TRIPLE-  
SEAL FITTINGS**  
from your jobber.



These Imperial Triple-Seal Fittings were all tested under 250 lbs. pressure with Freon after the seats had been damaged.

Close-up of the battered seat of an Imperial Triple-Seal Fitting that came through the torture test without leaking.

**THE IMPERIAL BRASS MFG. CO.**

565 S. Racine Ave., Chicago, Ill.

# IMPERIAL Refrigeration and Air Conditioning Products

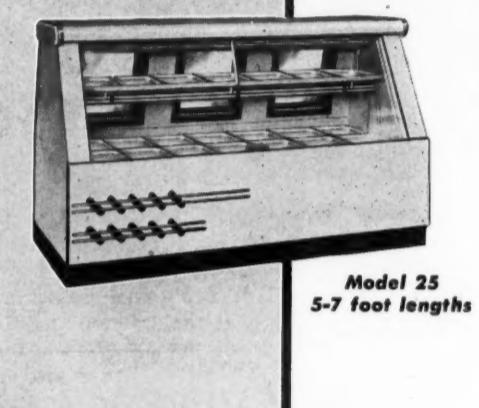
STRAINERS • DEHYDRATORS • VALVES • FITTINGS • FLOATS • CHARGING LINES • TOOLS FOR CUTTING, FLARING, BENDING, COILING, PINCH-OFF AND SWEDGING

# The World's Most Complete Line of COMMERCIAL REFRIGERATION

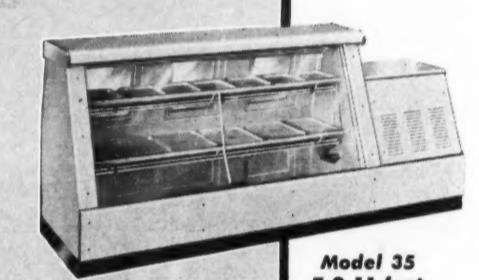
Factory engineered and assembled with condensing units ready for installation  
(Without units if desired)

## *The Latest* SUPER-COLD SENSATION

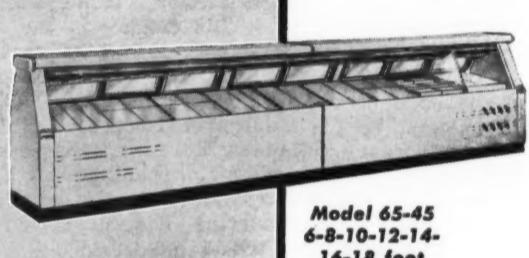
FOR 700,000 NEW PROSPECTS



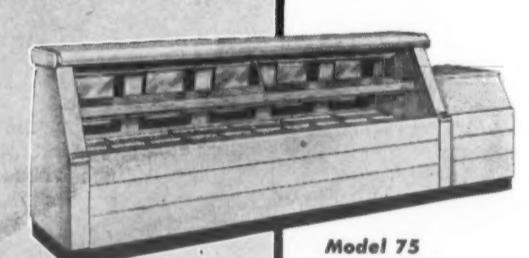
Model 25  
5-7 foot lengths



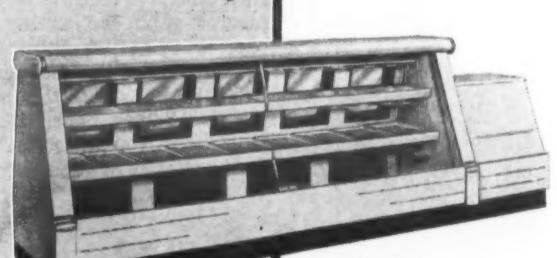
Model 35  
7-9-11 foot lengths



Model 65-45  
6-8-10-12-14-  
16-18 foot lengths



Model 75  
6-8-10-12-14  
foot lengths

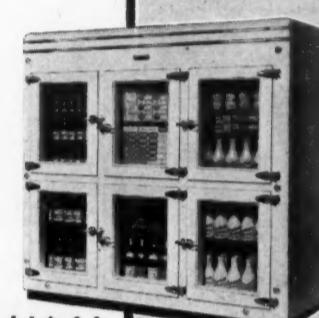


Model 85  
6-8-10-12-14  
foot lengths

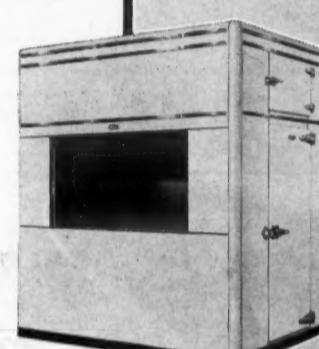


A Fast Seller at Full List,  
Plus Freight • Sells Fast  
Without Discounts or Trade-  
Ins • Every Retail Food Merchant a "Hot"  
Prospect • Nothing Like It, Thus No Com-  
petition.

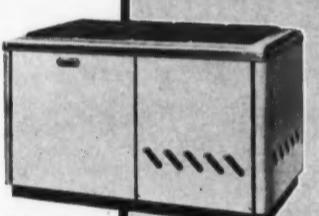
At the low list  
complete \$495  
with unit In 7' Length  
Liberal money-making  
discounts. Porcelain Inter-  
ior and Exterior.



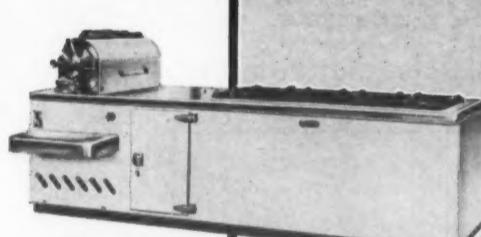
Reach In's 4-6  
and 8 door  
models Deluxe  
or Porcelain



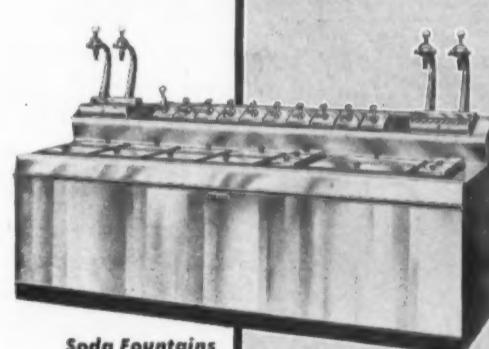
Walk-In Coolers  
all Standard  
sizes



Dispensing  
Cabinets



Freezers with  
hardeners or  
Separate units



Soda Fountains  
20-30-40 and  
60 gallon

### Super-Cold Corp.

1020 East 59th Street  
Los Angeles, California

Send details of your distributors  
proposition.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

FOR EXCLUSIVE DISTRIBUTORS FRANCHISE . . . WRITE

### THE SUPER-COLD CORPORATION

1020 EAST 59TH STREET • LOS ANGELES, CALIFORNIA

### CONVENIENT WAREHOUSES

LOCATED AT  
NEW YORK, CHICAGO,  
DALLAS, & PORTLAND, ORE.

## 'East Side' Dealer Remodels

EAST ST. LOUIS, Ill.—Markoff Appliance Co., Kelvinator dealer, has moved to a new business site at 3300 St. Louis Ave., where completely remodeled quarters are maintained. Harry Markoff is president of the company.

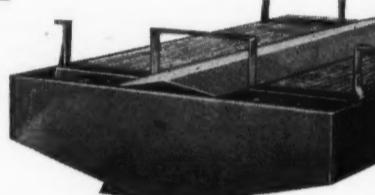


The market for "packaged" air conditioning is almost unlimited. But no sale is better than the unit you sell! It will pay you to investigate the GR-Lipman line. We have a liberal sales franchise . . . and equipment that is unexcelled. Write for details.

GENERAL REFRIGERATION CORP.  
Dept. AC-2 Beloit, Wisconsin

## REMPE AUTO-DRAF MEANS

FREE  
Send for  
your copy  
of "Fin Coil  
Engineering."

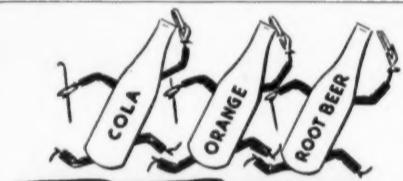


### Look to REMPE for

- ★ No Dehydration
  - ★ No Drip
  - ★ No Stagnant Air
  - ★ Lowest Installation and Operating Cost
  - ★ Perfect Temperature Distribution Always
- No moving parts—  
A size for every cooler

**REMPE CO.**

344 N. SACRAMENTO BLVD. CHICAGO, ILL.



## New PELCO Sells 3 Flavors!

## COIN VENDING COOLER

Exactly what they want - -  
The Right Size - - Low Price!



Get more facts about this sensational new PELCO No. 326 coin operated cooler! Dispenses 1 to 3 flavors—either 6 oz. or 12 oz. or a combination of both. Dry type, fan distributed cooling. Capacity 146 bottles. Large pre-cooling space holds 106 bottles. Simple, sturdy, ECONOMICAL. Write.

**Portable Elevator Mfg. Co.**  
Est. 1899. Bloomington, Ill.

Portable Elevator Mfg. Co., Bloomington, Ill.  
Desk A-60. Please send me Pelco facts.  
Name.....  
Address.....  
City.....  
By.....



## VIRGINIA REFRIGERANTS FOR THE SOUTH POLE!

When Admiral Byrd's Expedition selected refrigerants for the long voyage from Boston to the South Pole, they had to consider that temperature conditions would range from equatorial heat to polar cold. It is a high tribute to Virginia's purity, quality, and dependability that Virginia products were chosen for this difficult job.

Vegetable Room, where perishable food for the expedition is stored—protected by Virginia Refrigerants.

Picture courtesy Kelvinator

A POPULAR LINE OF LOW-PRESSURE  
REFRIGERANTS

EXTRA DRY ESOTOO • V-METH-L • METHYLENE CHLORIDE

**KINETIC'S  
FREON-72  
VIRGINIA**

**VIRGINIA SMELTING COMPANY**

At tidewater, WEST NORFOLK, VIRGINIA



## Trying To 'Trade-Up' Prospect Too Far Seen as Cause of Many Lost Sales

BIRMINGHAM, Ala.—Good outside salesmen don't necessarily make good sales closers in the store, and vice versa—that's something almost every appliance dealer has already discovered. Possibly one of the explanations is offered by the "closer" for a Birmingham department store, who is reputed to sell more appliances than any other man in the city.

"Act just as if everybody who comes into the department has come to buy then," explained this veteran floor man. "After first qualifying the prospect, I immediately show her what she is interested in.

### 'TRADE-UP' CAUTION

"If it is a 'special,' I endeavor to trade her up to the next highest priced model—but not more. To try to get her to pay a lot more than she wishes will lose two out of every three sales, in my opinion. A salesman can waste enough time

'trading up' a customer to make two or three more sales.

"While being courteous to all, I do not waste a lot of time with niceties. That can be overdone. I take definite charge of the interview, don't mind asking the prospect to 'come over here,' 'try out that,' or 'to have a seat there.' In other words, I am not afraid to lead the customer, rather than have her lead me. I have seen salesmen who would have as many as a half dozen refrigerator doors open at once while showing a customer. That is scattering your shot. I concentrate on one or two, and on the features which the customer evidently likes.

### 'CLOSING' TECHNIQUE

"Furthermore, I don't mind asking a customer to buy. No, I don't ask her directly as that. But I may ask her to come into the closing room 'to see how it works out.' Then I figure out the sale on a piece of paper, possibly on the back of a contract, setting out the trade-in, down payment, and monthly payments. If she agrees, then there is nothing left to do but turn the contract over, fill it out, and let her sign.

"In contrast to this, the outside man rarely expects to sell on his first call. He has to go into all angles of the situation, then depend on another call or possibly getting the prospect down to the store. This takes a lot of pleasantries and visiting, whereas the contact on the sales floor, as I see it, is strictly business. That is where a lot of good salesmen fall down.

"A floor man can talk himself out of more sales than he makes, if he doesn't know when to stop talking. I endeavor to use the fewest words possible to make the sale, and then change the subject."

## 2 Service-Free Years Rate an Endorsement

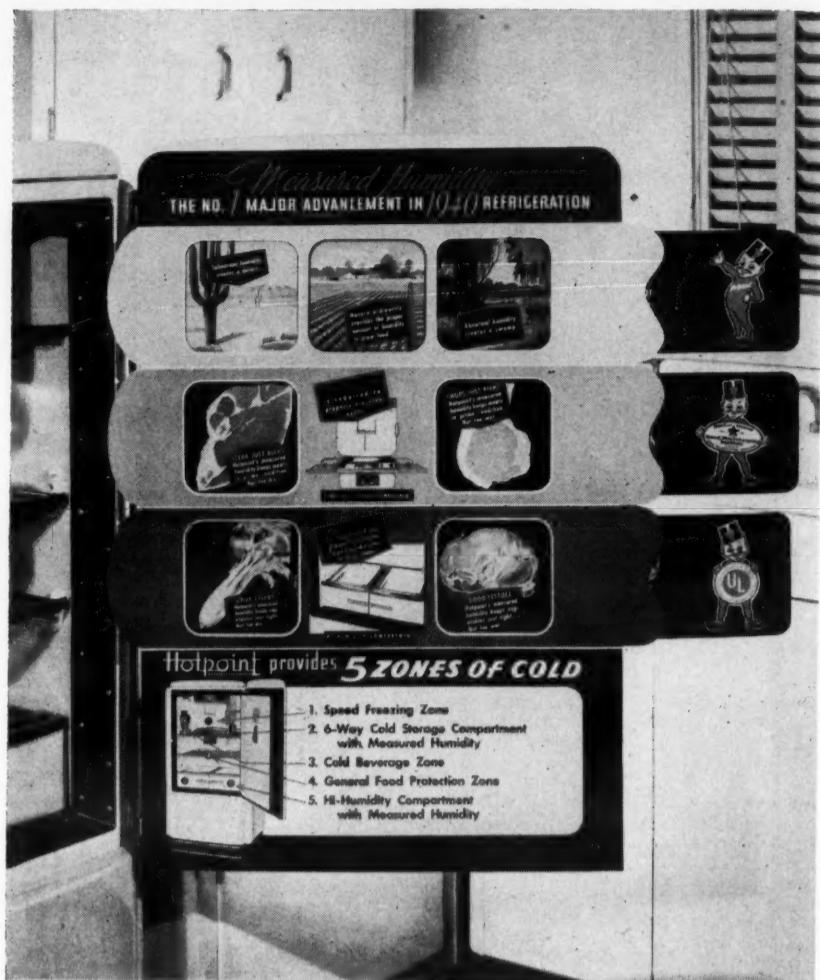
FORT WORTH, Tex.—Doing an about-face on the usual type of "endorsement" advertising, Ellison Co., furniture and appliance store, went to its own appliance department rather than to users for a testimonial as to the satisfactory mechanical performance of the refrigerators it sells.

In a full-page advertisement, the company features a sworn statement by W. C. Currie, appliance department manager, that not a single mechanical service call has been received in the more than two years that the company has handled Hotpoint refrigerators.

Captioned "Here's the Sworn Record . . . Not even ONE service call have we had on HOTPOINT," the advertisement pictures a deluxe model 6-cu. ft. unit priced at \$212.50, but features a 6-foot special model at \$117.50, on terms of 15 cents a day.

In an appendix to the affidavit by Mr. Currie, the advertisement notes that he has been associated with the Ellison organization for 20 years, and for eight years has been manager of its appliance department.

## Selling By 'Sight'



Prospects can see, as well as hear, Hotpoint's 1940 story of "measured humidity" by means of this "Visualizer" which fits on the refrigerator door. Three sliding panels tell the food preservation story in color pictures and copy, and the lower portion of the panel points out the refrigerator's "five zones of cold."

## Cashing In on the Camera Craze

Photo Supplies Department Helps Dealer 'Break the Ice'  
To Appliance Sales and Store Traffic

By Robert M. Price

SPRINGFIELD, Mass.—Capitalizing on the greatly increased interest in amateur photography, Freedman Radio & Electric Co., Hotpoint dealer here, has added a complete photographic supplies department to its store, and has found that this department not only more than pays its own way, but has proved to be an excellent means of "breaking the ice" for new appliance accounts.

"One of the biggest problems of the appliance dealer is opening up worthwhile new accounts," says Harold Freedman, firm owner. "While our photographic supplies department has developed into a business in itself, we have traced the opening of many new appliance accounts to this department.

### THEY'RE GOOD CUSTOMERS

"This department caters to a superior class of customers, credit is easily established, and collections are very good. Customers in this department add names to our appliance prospect list, prospects which do not have to be crossed off because of poor credit."

The photographic department is only one of Mr. Freedman's ideas to build sales resulting from store traffic. The firm recently moved into an attractive new store which is fitted out with the latest wrinkles in

fixtures and display equipment. Selling modern equipment for the home, the store leans heavily toward the modern in design, featuring a bright color scheme and lights which highlight the displays.

The photographic department is on the left, up front, and directly behind this display is the appliance department, placed so that it acts as a magnet to customers of the store.

On the opposite side of the store is the radio department, flanked by a record department. Like the photographic department, the record department has developed into a fine traffic builder.

For the convenience of radio, phonograph, and record customers, five "listening booths" have been built around the display floor.

### SMALL APPLIANCE 'OPENERS'

In one part of the appliance department is a small appliance section, where a pyramid display is used as an eye-catcher. The small appliances are used as additional "account openers" for larger appliances. Sold on a 50 cents a week basis, they serve to bring customers into the store several times during the payment contract.

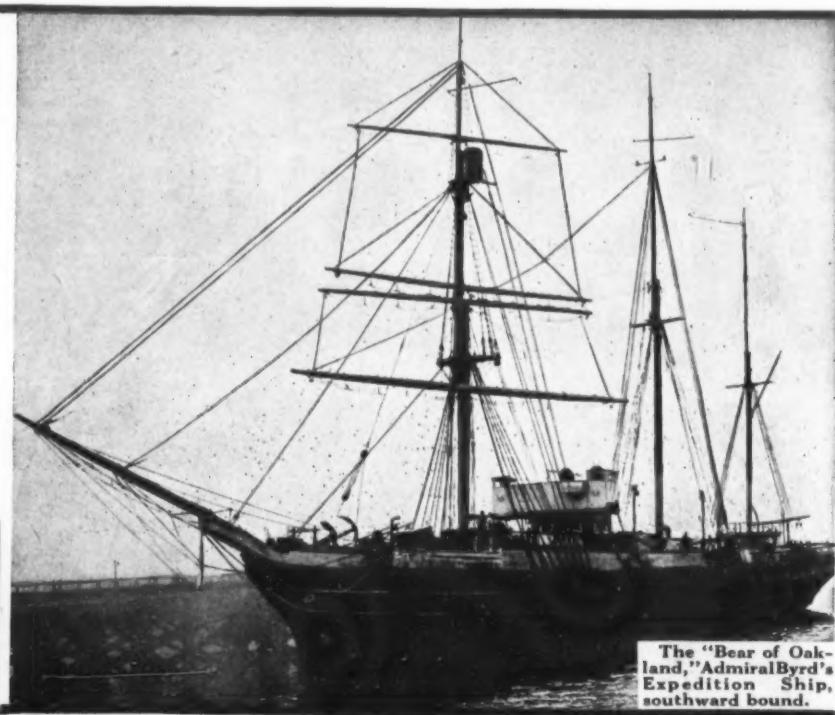
Fitting in with the whole plan is what Mr. Freedman calls "a progressive plan for selling." When a customer opens an account in any of the departments, and his credit has been established, the store will allow him to buy other items with no increase in the monthly payments. Length of the contract is merely extended.

The traffic-building system has made it unnecessary to hire outside salesmen. Follow-up on store prospects is accomplished largely by telephone.

## Time-Payment Sales Tax Levied In Mississippi

JACKSON, Miss.—The new privilege tax on commercial credit companies became effective June 1, under provisions of the law passed recently by the Mississippi legislature.

The tax, designed to raise \$150,000 a year in revenue, calls for a rate of  $\frac{1}{4}$  of 1% on retail paper and  $\frac{1}{2}$  of 1% on whole or floor plan paper. Loans on refrigerators, radios, and other personal property are included in the new rate.



## Denver Store's 3-Point Range Sales Program Costs Less, Does More

DENVER—A three-point selling plan—no cooking schools, dramatized display, and careful follow-up of floor leads—has enabled Denver Dry Goods Co. to realize 50% better results on its electric range promotional expenses, and has increased sales well above prior-year marks, reports Miss Bee Winters, department manager.

Last year's range sales totaled 440 units, a huge pick-up over 1938, and the store anticipates a 20% increase in sales this year.

Cooking schools have been replaced with a daily news broadcast, on the air each noon, with war news briefs interspersed with electric range commercials. In addition to elimi-

nating the "joyriders" or no-sale women present at all cooking schools, the radio program attracts just as many bona fide prospects, at lower cost.

Display has been "dramatized" by the spotting of one colorful red or black model to each four or five white ones, as well as by the addition of some "old-timer" models to demonstrate long life of the units. This has upped floor traffic by 100%, Miss Winters says.

Careful follow-up of floor leads has eliminated necessity for outside calls and direct-mail advertising. All but the "hottest" prospects are eliminated by this method—but lead sales have averaged almost 50% of the store's volume, much higher than ever before. Free service and adjustments on major appliances also have proved a goodwill builder for the department.

### Demonstrations = Sales



Mrs. Wilbur Nagel, who with her husband runs Nagel Electric Co. in Wapakoneta, Ohio, has never lost an ironer sale once she has made a demonstration. Here she shows how the ironer can be used for complete "valet service," even to pressing a man's suitcoat.

### Advertising Scheduled For N. Y. Refrigerator Drive

NEW YORK CITY—A newspaper advertising campaign to support Consolidated Edison Co.'s merchandising drive on refrigerators will be launched June 3 and continue to Aug. 31. Space will be taken in the eight New York dailies, with copy to run during the first four days of each week. Billboards and truck posters also will be used.

Advertising will be divided equally among the eight papers, so that all classes of buyers ranging from apartment house owners to individual home owners in the suburban areas will be covered. Agency handling the campaign is Batten, Barton, Durstine & Osborn, Inc.

### EARNINGS

#### Commercial Investment Trust

NEW YORK CITY—Directors of Commercial Investment Trust Corp. have declared a regular quarterly dividend of \$1 per share in cash on the common stock, payable July 1 to stockholders of record June 10.

Regular quarterly dividend of \$1.06 1/4 on the convertible preference stock, \$4.25 series of 1935, also was declared, payable on the same basis.

#### Stewart-Warner

CHICAGO—A dividend of 25 cents a share, payable June 30 to stockholders of record at the close of business on June 7, has been voted by directors of Stewart-Warner Corp.

#### General Electric

NEW YORK CITY—Announcement of a General Electric Co. dividend of 35 cents a share to be paid on July 25 to stockholders of record June 28 was made by President Charles E. Wilson following a recent meeting of the company's board of directors here.

## NRDGA Groups To Hold Mid-Year Convention

CHICAGO—Eight groups of the National Retail Dry Goods Association will join in a 1940 mid-year convention of the association in the Palmer House here June 17-20, according to present plans.

The management groups have all voted to follow the change of date from the week of May 20, during which all of the association divisions and groups originally planned to hold their meetings. The management groups include store management, personnel, traffic, and delivery executives.

The controllers' congress, sales promotion division, and merchandising division previously made known their intention of switching to the June date.

In light of the action of the other N.R.D.G.A. groups the bureau of smaller stores also has announced a decision to hold its meetings as a part of the association's mid-year convention.

## New Orleans Housing Bids Due June 13

NEW ORLEANS—Final placement of bids on the proposed purchase of 4,917 electric refrigerators for the \$30,000,000 slum clearance project of New Orleans housing authority is set for June 13.

Approximately 4,000 refrigerators will be of 4-cu. ft. size, and the remainder of 6-cu. ft. size for larger apartments in the six low-rent projects that comprise the local program. Bids will also be received on a similar number of gas ranges.

### Minn. Electrical Assn. To Meet July 19-21

HIBBING, Minn.—Annual summer meeting of the Minnesota Electrical Association will be held here July 19 to 21. Feature of an afternoon program will be a promotional presentation sponsored by North Central Associated Electrical Industries.

## New Farnsworth Radio Line Makes Its Bow

FORT WAYNE, Ind.—Farnsworth Television & Radio Corp. was scheduled to hold its second annual international sales conference June 3 and 4 at Edgewater Beach hotel, Chicago. Some 300 distributors from United States and points in the export field were expected to attend the meeting.

Introduction of the new Farnsworth line of radio receivers and radio-phonograph combinations for the 1940-41 season was to be the high point of the conference. New line includes a.c.-d.c. table models and consoles, a.c. table and console and table models, portable a.c.-d.c. battery receivers, battery farm sets, and radio-phonograph combination models.

Display of Farnsworth television equipment from the Fort Wayne plant and a showing of the mobile demonstration unit which has been on a coast-to-coast tour was to be among the outstanding features at the conference.

# Kelvinator's Average Retail Sale Tops the Industry

*With a Convincing, Logical and Unrivalled "Step-Up" Plan—  
Kelvinator Dealers are not only Selling More  
but are also Making More per Sale!*

**Y**ES, the latest reports show that Kelvinator's average unit of retail sale is more than *seven dollars higher* than the average for the industry.

This means that Kelvinator Dealers are selling more of the higher priced refrigerators where gross profits are greatest—are, in fact, *making more dollar profit* on each sale.

And you can credit this happy situation squarely to—

**1 Kelvinator's unrivaled "step-up" plan of selling—the best plan in the industry.**

**2 Kelvinator's outstanding product features and value, including exclusive, new "Moist-**

**Master" models specifically designed for the increasingly large replacement market.**

**3 The greatest volume and hardest-hitting advertising and sales promotion support for dealers in Kelvinator's history.**

**4 Kelvinator's overall program for 1940 that was carefully planned last year.**

There is every indication that the refrigeration business will be extraordinarily active throughout the summer. And Kelvinator dealers are in the best possible position to cash in on this active market by getting an increased volume of sales and selling the higher-priced models that carry the greatest dollar profit.

# KELVINATOR

Look at the Size!

Look at the Name!

Look at the Price!

**AIR CONDITIONING & REFRIGERATION NEWS**

Trade Mark registered U. S. Patent Office;  
Established 1926 and registered as  
Electric Refrigeration News

F. M. COCKRELL, Founder

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**Industry's Tributes  
Reveal Respect For  
F. M. Cockrell**

PUBLISHED on this page are many of the letters which poured into the offices of the Business News Publishing Co. after the air conditioning and refrigeration industry had recovered from its initial shock at the announcement of F. M. Cockrell's death.

They indicate how firmly he had stamped his character on the business, and how much his contemporaries appreciated what he had done to weld together this boiling, broiling young industry, and to establish the ideals and principles of business conduct which are gradually becoming accepted as standard practice throughout the refrigeration world.

As the man who launched "REFRIGERATION NEWS" upon a somewhat startled infant industry, F. M. Cockrell has made himself and what he stood for known wherever you find people engaged in making, selling, installing, and servicing devices for the reduction of temperature.

In practically all of these letters runs one dominant note: F. M. Cockrell was a strong character, whose unwavering adherence to his code was his most marked characteristic. Some wrote, and others have told us orally, that: "There were times when we disagreed with him. But always he kept our esteem and admiration."

It is true that F. M. Cockrell engaged in many controversies. In retrospect it sometimes seems that his entire career was made up of one long series of battles. But always he was fighting for what he deemed to be the RIGHT. And in practically every instance he earned and maintained the respect of his opponents.

At a time when so many of civilization's ideals are being flouted, when truth and righteousness and honor are being sacrificed at the altar of expediency, when false prophets abound in the land and their followers are legion, the life of a man like F. M. Cockrell stands out like the beam of a lighthouse in a storm at sea.

**Refrigeration Industry Mourns Passing of F. M. Cockrell****Important Activities****In the Industry**

**—Howard E. Blood**

Norge Division  
Borg-Warner Corp.  
670 E. Woodbridge St.  
Detroit, Mich.

Dear George:

I just heard the news of Frank Cockrell's death and it was quite a shock to me as I had not even heard of his being ill. It is very sad to think of a man being taken out of his important activities in the industry in the prime of his life, and I can appreciate to some extent what his passing may mean to you personally. Accordingly I should like to extend to you and to his family my sincerest sympathy.

HOWARD E. BLOOD,  
President

**Experienced Uplift  
In His Company**

**—E. T. Williams**

32 W. 40th St.  
New York, N. Y.

Dear George:

I have just learned of Mr. Cockrell's death and know what a terrible loss it must be to you and your associates. His service to the refrigerating industry cannot be exaggerated. Please accept and extend to the others of your staff, my deep sympathy.

E. T. WILLIAMS,  
Consulting Engineer

**Conscious of His  
Business Character**

**—D. Wanamaker**

Duane Wanamaker  
Advertising  
221 N. LaSalle St., Chicago, Ill.

Dear George:

Was very sorry indeed to learn of Mr. Cockrell's death. Strange as it seems, I don't believe I ever met him, but was very conscious of his character in the business.

Now that the mantle has been thrown to you, I know you will carry on in a creditable manner. This letter is merely to wish you a lot of luck, and to let you know that in my small way I'll be cheering you on wherever and whenever possible.

DUANE WANAMAKER

**The Industry Has  
Lost Real Friend**

**—Phil Murray**

Air Conditioning Training Corp.  
Youngstown, Ohio

Dear Mr. Taubeneck:

It was with deep regret that I learned this morning of the death of Mr. Cockrell. I feel that the air conditioning and refrigeration industry has lost a real friend.

In times like these, I realize that mere words mean very little but I do want you to know that I am sincere when I say that I am terribly sorry. I also want to take this opportunity to congratulate you on your elevation to the presidency of the Business News Publishing Co. All of us here at the Air Conditioning Training Corp. feel that this was a natural move, one that was well deserved, and one that will certainly react to the benefit of AIR CONDITIONING & REFRIGERATION NEWS.

PHIL MURRAY,  
Student Service Director

**Head & Shoulders  
Above the Field**

**—E. A. Vallee**

Automatic Products Co.  
2450 N. 32nd St., Milwaukee, Wis.

Dear Mr. Redeker:

Your letter of May 28 was quite a blow and the first we have heard of Mr. Cockrell's death.

There isn't much that can be said at a time like that but both the industry and your company have lost

a man who we don't believe can be replaced. We are sure you will carry on for you have all had the privilege of working closely with Mr. Cockrell and that experience alone would make it possible for you to carry on and stand head and shoulders above the field.

E. A. VALLEE,  
Vice President

**Influence For  
Sound Growth**

**—Art Schellenberg**

Telegram  
St. Louis, Mo., 6/1/40, 11:06 A.M.

George Taubeneck,  
Business News Publishing Co.

Deeply shocked at news of Mr. Cockrell's death. Please extend to family and staff sympathies of Alco personnel and myself. The industry has lost a fine man and a powerful influence for sound growth. I know you and your staff can and will carry on and increase the importance of Mr. Cockrell's service. You have my understanding best wishes in assuming your new responsibilities.

ART SCHELLENBERG,  
President, Alco Valve

**Truly Great  
Leader of Industry**

**—E. P. Sorensen**

Utilities Engineering Institute  
404 N. Wells St., Chicago, Ill.

Dear Mr. Taubeneck:

The entire staff of Utilities Engineering Institute joins you in mourning the passing of F. M. Cockrell. Death has indeed taken one of the industry's truly great leaders.

It is with renewed confidence that we look into the future, knowing the policies Mr. Cockrell fought so hard to preserve will be perpetuated throughout the years.

To you, upon whose shoulders fall the responsibilities of continuing the fine work of your former leader, we pledge our continued cooperation and extend every good wish for the success which we feel confident will be yours.

E. P. SORENSEN,  
President

**Highest Respect For  
His Contributions**

**—F. R. Kohnstamm**

Telegram  
Mansfield, Ohio, 5/28 4:43 PM

George F. Taubeneck,

Mr. Cockrell's many friends in Mansfield are shocked to learn of his untimely passing. We knew him as an able editor and publisher and held him in highest respect for his important contributions to the industry. His loss will be deeply felt.

FRANK R. KOHNSTAMM,  
Westinghouse

**Had an Ideal,  
Drove Toward It**

**—V. E. Vining**

Westinghouse Electric & Mfg. Co.  
246 East Fourth St.  
Mansfield, Ohio

Dear George:

I have planned to write you an entirely different type of letter—that Helen and I might wish for you and your new wife as much fun and real joy in your married life as we have had. Those wishes all stand, but I am saddened beyond words at the death of Mr. Cockrell.

Our business is so young, we none of us have become hardened to losing our associates. I suppose as the business grows older and new generations take over, we will look on the passing of individuals as a normal part of each year's story. I imagine too there will never again be a period in the industry where such friendships will be developed as have grown up in the comparatively small group that has stuck through and fought through the growing years of refrigeration.

It seems to me but yesterday that I first saw Cockrell—a long, lean, lanky, hopeful looking editor, carrying a package of his first born issue under his arm and explaining with all the wild-eyed enthusiasm of a crusader that there was a place in the refrigeration industry for a trade journal. It all seems so simple now it is hard to remember that many

companies saw no place in the picture for Mr. Cockrell's idea.

Somewhat, to me, Cockrell will always be the outstanding man of my acquaintance in his singleness of purpose. He had an ideal, and he drove toward it. I have watched a hundred efforts to divert him, but they all fell by the wayside. I haven't always agreed with him, but I remember a hundred times when I, with the industry, might easily blush at our disagreements.

I remember too his pride in you personally and how carefully he watched over your first days of editorship. As I dictate this letter, I remember so many things—but don't know how to say them.

VERNON E. Vining,  
Director, Dept. Store Sales

**Common Sense,  
Wit and Charm**

**—Irving Alter**

The Harry Alter Co.  
1728 So. Michigan Ave.  
Chicago, Ill.

Dear George:

It was an extreme shock to learn of the death of Mr. Cockrell. Since I have known him I have had the deepest respect and admiration for him and have always looked on him as a friend. Honesty and integrity were not mere words to him and were reflected in his independent spirit, thought, and action. His wit, charm, sound judgment, and good common sense made every contact with him a pleasure whether it was personally or through the News.

It is with a deep feeling of personal loss that I extend my sympathies to you and his dear ones.

IRVING ALTER

**Found Him Helpful  
And Cooperative**

**—A. J. Asch, Jr.**

Associated Refrigerator Plant, Inc.  
Home of the National Market Index  
3028 Hunting Park Ave.  
Philadelphia, Pa.

Gentlemen:

Permit us to express our deep sympathy in the loss of your publisher, Mr. Frank M. Cockrell.

We have only known Mr. Cockrell a short time but in our brief association with him we have always found him helpful and cooperative.

We feel that his loss will be felt strongly by the entire refrigeration industry.

ANDREW J. ASCH, JR.

**Sincerest Sympathy  
In Great Loss**

**—Charles Muller**

Rotary Seal Co.  
809 W. Madison St., Chicago, Ill.

Dear Zeke:

We very much regret to learn of the death of F. M. Cockrell; in fact, we were rather shocked when we read about it in the May 29 issue of your News.

Please accept our sincerest sympathy in the loss your organization has sustained and also convey our sympathy to Mrs. Cockrell.

CHARLES MULLER,  
Secretary

**Stabilizing Force,  
Man of Clear Vision**

**—H. R. Van Deventer**

Van Deventer & Grier  
Patent Attorneys

342 Madison Ave., New York, N. Y.

My Dear Mr. Taubeneck:

We have just learned from the News of May 29 of Mr. Cockrell's death, and wish to extend to his family, his friends, and his business associates our condolence.

We were all great admirers of Mr. Cockrell not only because of his fine personal character which endeared him to every one that knew him, but also because of the splendid part he played in the growth and development of the refrigeration industry. He was a stabilizing force, a great power, a man of clear vision and principle, and has left an indelible mark on the industry in which he was a pioneer.

As one of the first advertisers and perhaps the first patent attorney to advertise in the News, which advertisement has continued to the present day, the writer recalls many instances where Mr. Cockrell played a most

constructive part in patent situations and litigation, and we know that his constructive influence will be missed by all of his friends and business associates.

H. R. VAN DEVENTER

**Steadfastness To  
His Principles**

**—F. S. Langsenkamp**

National Refrigeration Supply  
Jobbers Association  
111 W. Washington St.  
Chicago, Ill.

Dear Mr. Taubeneck:

I wish to extend to you in behalf of our organization, the National Refrigeration Supply Jobbers' Association, our sincere regrets on the death of your founder, Mr. F. M. Cockrell. The Jobbers' Association feels very deeply grateful for the assistance of Mr. Cockrell and the Business News Publishing Co. in the formation of this group. It was through Mr. Cockrell's efforts that we had our first meeting in Detroit and through his continued support we have been able to prosper. We feel as though we have lost a real friend. I sincerely admired Mr. Cockrell for his steadfastness to his principles and his unceasing devotion to the betterment of the industry.

**Good Business Man  
& Good Fighter**

**—Gerald Hulett**

Electromaster, Inc.  
1803 E. Atwater St.  
Detroit, Mich.

Dear George:

It was a great shock to learn of Mr. Cockrell's death. On my own personal behalf and that of Electromaster I want to extend sincere sympathy.

I know that it will be a great loss to you and to this industry. It is such a shame that a man of his caliber should have to be taken at an early age. He was a good business man and a good fighter and I have always respected him highly.

GERALD HULETT

**They'll Do It Every Time****By Jimmie Hatlo**

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## ASRE Meets Next Week at Skytop

(Concluded from Page 1, Column 2) preside at the opening technical session on Monday, June 10, at which "Effect of Superheat on Capacity of Commercial Compressors" will be discussed by E. R. Wolfert of Westinghouse Electric & Mfg. Co., and another paper will be presented by R. A. Brodesser of Southern Dairies, Inc., Washington, D. C.

At the morning's second session, at which George E. Hulse, national A.S.R.E. president, will preside, "Refrigeration in the Chemical Industry" will be outlined by D. H. Killeffer, New York City consulting engineer, and "Manufacturers vs. Distributors" will be presented by Robert B. Thomas, New York City attorney.

Feature of this session also will be the formal induction into the national body of the new A.S.R.E. sections recently organized in Richmond, Cincinnati, and Pittsburgh.

At the opening session on Tuesday, June 11, chairmanned by L. L. Lewis, "Zoning Problems in Air Conditioning" will be presented by Walter Grant of Carrier Corp.'s Philadelphia office. "Sales Management in Air Conditioning" will be discussed by John deB. Shepard of Consolidated Gas Electric Light & Power Co. of Baltimore.

Closing session, later in the morning, will be under chairmanship of W. R. Hainsworth, and will feature a paper on "Storage of Frozen Vegetables," by Donald K. Tressler and Clarence Du Bois of New York Agricultural Experiment Station. Business session, a hearing on the comfort cooling code, and a discussion of meeting places will follow.

Council luncheon and meeting at 1 p.m. will close the convention.

R. E. Townsend is chairman of the entertainment committee for the meeting, other committee members being C. R. Logan, R. M. Armstrong, R. H. Money, F. H. Stiening, and H. G. Roberts. Mr. Roberts is in charge of golf prizes and other competitive awards.

Women's committee for the convention comprises Mrs. George Hulse, chairman; Mrs. R. M. Armstrong, Mrs. W. R. Hainsworth, Mrs. C. R. Logan, Mrs. David L. Fiske, and Mrs. F. H. Stiening.

## Scaife Named Head of G-E Merchandising

(Concluded from Page 1, Column 5) tributor in Hawaii. He joined the company's refrigeration department at Cleveland in 1928, succeeding Walter Dailey in 1935 as sales promotion manager for the specialty appliance lines.

Harold P. Smith, assistant to the appliance sales manager since 1938, becomes assistant to B. W. Bullock, appliance and merchandise advertising manager at Bridgeport, where he will be responsible for all production activities, cost records, and financial operations of the advertising division.

M. G. Johnson has been appointed production supervisor of the advertising division, succeeding D. A. Wood, and will be responsible for the production, photography, distribution, art, printing, etc.

L. H. Taylor, who has been assistant manager of credits and collections of the appliance and merchandise department at Bridgeport, will henceforth report to Mr. Snyder, where he will act as consultant on operations of distributors and will be responsible, among other things, for the operating costs of the appliance field organization.

### Former Dallas Dealer Dies of Heart Attack

DALLAS, Tex.—Phil H. Pierce, formerly associated with Jack Langston in the Pierce-Langston Co., representative in Dallas for the Weber Show Case Co., died May 30 from a heart attack.

Mr. Pierce only a few days before his death had severed his association with Mr. Langston, his interest having been acquired by the latter by purchase.



## Wall Wire Products Co. Opens Chicago Office

PLYMOUTH, Mich.—Wall Wire Products Co., manufacturer of stainless steel refrigerator shelving, has opened a Chicago office at 616 South Michigan Ave., reports E. L. Russell, vice president. G. H. Emin has been named manager of the office, which will serve customers in Illinois, Indiana, Wisconsin, and Minnesota.

## Tecumseh Field, Factory

### Men Meet June 13-15

#### In Annual Meeting

TECUMSEH, Mich.—Formal opening of Tecumseh Products Co.'s new two-story air conditioned office building will be held in connection with the company's tenth anniversary sales meeting here June 13 to 15, to be attended by all Tecumseh field men.

Present at the meeting, in addition to Tecumseh factory executives, will be field men George I. Boone, New York City; J. A. McLaren, Los Angeles; Marc Shantz, Chicago;

Gail Halliday, Denver; D. J. Bowen, Dallas; J. E. Parker, Atlanta; J. W. Beneke, St. Louis; D. P. Heath, Detroit; F. A. M. Dawson, London, Ont.; and E. C. Burgin and V. A. Wilkinson of the company's export department, Detroit.

Ceremonies opening the new office building will be held on June 13, and the tenth anniversary dinner-dance will be held in the Tecumseh high school auditorium on the night of June 14. A Detroit orchestra and floor show will provide the entertainment for the affair, and catering will be handled by a Detroit company.

It is expected that about 100 couples, members of the Tecumseh organization, will attend the dinner-dance and entertainment.



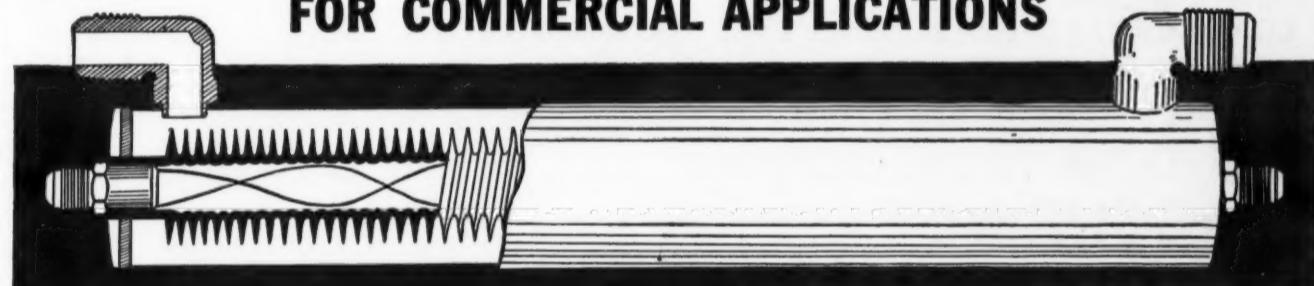
# SQUARE D

## REFRIGERATION CONTROL

DO IT ALL WITH SQUARE D  
SWITCH-PROTECT-REGULATE

SQUARE D COMPANY • REGULATOR DIVISION • DETROIT

## Now! NEW FRIGIDAIRE HEAT INTERCHANGERS FOR COMMERCIAL APPLICATIONS



### Save Money! . . . Increase Efficiency!

Now Frigidaire offers new Heat Interchangers for Commercial applications—low temperature and soda fountain installations, walk-in coolers, meat coolers, forced air evaporators, multiple hook-up on ice cream cabinets and others. Built with the quality materials and engineering genius that has made Frigidaire the greatest name in refrigeration—these Frigidaire Heat Interchangers give you new opportunities to save money and increase operating efficiency.

### You get these Outstanding Advantages!

- Use of Greater Evaporator Surface without Frostback
- Elimination of Drier Coil
- Increased Capacity through Interchange of Cold Gas and Warm Liquid
- Compact and Easy to Install
- Fitted with either "Flare" or "Sweat" Connections
- Conducive to High Heat Transfer because of Integral "Fin" Tubing—(Tubing all in 1 piece)



Write your Frigidaire distributor today for prices and full details

### A Size for All Applications!

**6000 BTU's per hr. (Flare or Sweat Fittings)**  
Suction Connection Size  $\frac{5}{8}$ "  
Liquid Connection Size  $\frac{5}{8}$ "  
Tube Length 17"  
Tube Diameter 1  $\frac{1}{8}$ "

**12000 BTU's per hr. (Flare or Sweat Fittings)**  
Suction Connection Size 2  $\frac{1}{2}$ " Flare  
1  $\frac{1}{8}$ " Sweat  
Liquid Connection Size  $\frac{3}{4}$ "  
Tube Length 17"  
Tube Diameter 2  $\frac{1}{2}$ "

**24000 BTU's per hr. (Sweat Fittings)**  
Suction Connection Size 1  $\frac{1}{2}$ "  
Liquid Connection Size  $\frac{5}{8}$ "  
Tube Length 24"  
Tube Diameter 2  $\frac{1}{2}$ "

TO SATISFY YOUR EVERY REFRIGERATION SERVICE NEED



**Artic**  
(DU PONT METHYL CHLORIDE)  
**SERVICE NEWS**  
It's Free! MAIL COUPON TODAY

E. I. DU PONT DE NEMOURS & CO. (INC.)

The R. & H. Chemicals Dept.

Wilmington, Delaware

District Sales Offices: Baltimore, Boston, Charlotte, Chicago, Cleveland, Kansas City, Newark, New York, Philadelphia, Pittsburgh, San Francisco

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Company.....

Address.....

City..... State.....

# Rema President Reports on Distribution Survey, Warns Against Price-Fixing, Seeks Show Policy

## Forbes, Retiring Association Head, Outlines Needed Work on Distribution Studies & Exhibition Plans

**Editor's Note:** J. S. Forbes, retiring president of the Refrigeration Equipment Manufacturers Association (Rema) gave a "straight-from-the-shoulder" talk about some of the activities and problems of the association and the refrigeration industry at the association's annual convention, and the News publishes the following excerpts from the talks as information to its readers.

By J. S. Forbes, Retiring President, Refrigeration Equipment Manufacturers Association

A problem that has bothered me many times was expressed in my recent letter of inquiry to the members. It's simply this—what do you want the association to do for you?

I am prompted to repeat here a quotation from my address at the last January convention. It is from a speech by Grover Cleveland—one of the most effective administrators among all of the presidents our country ever had. Cleveland said, "An industry that takes its problems to a forum of its members will omit many errors."

Realizing that trade association work is primarily an educational undertaking, we steered our course along these lines, to throw out for consideration the problems in which we believed the most members would be interested.

These discussions were in themselves innovations any many took part in them at French Lick, Ind., in April and at Turkey Run in October. If the frank open nature of these arguments and presenta-

tions contributed even a little to your thinking, or if it changed your viewpoint or policy, then you've profited and so has our industry.

First you hear a presentation introducing the problem, and the first speaker's viewpoint. This is followed by questions, discussion, and finally YOU must decide which is best for you. This is the educational process to which I referred. Matching your idea, your viewpoint, against mine; sifting, throwing out, and finally deciding that perhaps the other fellow is right, that's education for adults.

Those of you who attended the joint manufacturers-jobbers luncheon meeting last January will remember my telling you of my astonishment over my discovery of what some of our members expected of their president. I told you then of complaints registered against other competitors and jobbers, and in some cases members of the REMA group were involved. But in most cases they pertained to concerns who have never seen fit to cooperate with us.

In substance, it seemed to me that they were asking their new president and our association to act as policeman, judge, and jury. If you think your association can and will be used to coerce your competitor to change his practices, I fear that the successful among us will promptly and vigorously object. Your officers have religiously avoided infractions of the law so that you may not be called upon to take up the burden of defending Federal prosecution.

You may not be a party to the violation but you'd have to defend your connections, would perhaps have to assume your share of the legal cost. All of this we've avoided because we followed a process of persuasion, education, and reflection, confident that what is best for all is best for you.

### LEGAL LIMIT TO ACTIVITIES

Many times I've considered how other trade associations and concerted industry efforts have produced more obvious profits. Practices were employed that made me at first feel that we were not aggressive, not audacious, not courageous, but finally I conclude that the Federal "Blitzkrieg" was caused and justified by all these qualities not being tested against our federal and state rights. We are like shrinking violets compared to some of the industries and trade associations now being investigated or recently indicted by the representatives of the consuming public.

We cannot and will not take part, as members of this trade association, in agreements to fix prices, divide territories, and conspire to restrain trade.

### INDIVIDUAL ADVICE OKAY

You and I may legally reason with our competitors about the necessity of making a profit from business. Along these lines I spoke before several territorial groups of refrigeration parts and supplies jobbers this last summer. I pointed out the effect of price cutting on profits and gave as part of my advice the example which follows:

"A' is a manufacturer or jobber—let's call him a business man, and through hard headed buying and economy is grossing 35% margin to his sales dollar. 'B' is his competitor who thinks that a 10% cut will bring him enough business to more than justify it. But let's see what enough really amounts to:

1. He must sell 40% more to make up for it.
2. He must handle 61% more goods in his efforts to make the same dollars of profit.
3. His "cut" amounts to 28½% of his competitor's margin.
4. His competitor makes 40% greater profit."

### 'Seasonal Activity' of Refrigeration Supply Jobbers

Month	East	Midwest	South	West Coast	National Averages
Jan.	18.4%	18.5%	14.5%	17.5%	4.8
Feb.	33.7%	34.1%	32.0%	31.4%	5.3
March	.....	.....	.....	.....	7.7
April	.....	.....	.....	.....	9.0
May	.....	.....	.....	.....	11.3
June	.....	.....	.....	.....	13.0
July	.....	.....	.....	.....	11.2
Aug.	29.2%	30.4%	31.9%	29.4%	10.3
Sept.	.....	.....	.....	.....	8.7
Oct.	18.7%	17.0%	21.6%	21.7%	7.4
Nov.	.....	.....	.....	.....	6.1
Dec.	.....	.....	.....	.....	5.2

Suffice it to say here that there were numerous challenges to the accuracy of these figures but no reason has yet been found to change them. Several have since revealed in confidence that the figures amazed them, caused them to consider well the policies they were pursuing, and to change quickly.

One jobber took me into his confidence and disclosed in detail his financial condition. He was doing a pretty fair business and clearing about 5% profit on his sales. He asked my advice about doubling his cash discount from 1% to 2%. When it was pointed out that he would reduce his profits by 20% to do this, he dropped it like a hot potato.

### SALES BY SEASONS

Another study I had hoped to develop with you refers to "seasonal activity" and the volume of business in each of the 12 months of the year to the end that each of us making or assembling a product could forecast, with some degree of accuracy, the business he could reasonably expect and hence provide stocks in anticipation, or control his production and inventory.

This study required a tabulation of the sales activity of 43 separate jobbing outlets all over the country—North, East, South, and West.

On the prospect that this report will be copied and later mailed to you, I will tabulate the results of this survey. You must keep in mind that these figures were obtained from the really active jobbing accounts, hence I feel safe in estimating that it represents 75% of the dollar volume done by the jobbing fraternity over the U.S.A.

Jobbers too will find these figures interesting and instructive. They could use them as a guide to provide adequate inventories in anticipation of relative volumes of business.

We as manufacturers should be shipping these volumes 30 days before; we should perhaps be making them 60 to 90 days in advance.

Shortly after assuming this office I made a swing around the country and soon after my return I gathered with my fellow officers for a memorable meeting in Chicago, at which I believe we took as square a look at the realities in our organization situation as has ever been taken. Out of that session with the concurrence of our board of directors came several important decisions, among which I mention just a few:

### "THE ASSOCIATION MUST . . ."

(1) If REMA is to justify its existence as the agency for attaining the objects stated in its By-Laws, it must be more than a one purpose institution. As an organization it must be bigger and broader than one set up to accomplish any one specific purpose.

(2) Agreeing that REMA should undertake greater responsibilities than merely operating a trade show, steps were taken to provide a more comprehensive and more helpful Credit Interchange Service than had been possible prior thereto. You've already heard a report on the year's activities in this department, and I shall comment on this again.

(3) With full knowledge and experience of the handicaps under which officers, directors, and committeemen worked when meetings were held in conjunction with exhibits, we separated the business meetings from the annual exhibits, and I express the opinion that results of the one experience will merit its being considered a permanent policy.

The problem of local trade exhibits is now very, very noticeable, yes, by its almost complete absence. The vigorous stand the membership took on this problem has apparently brought the desired results.

With respect to the All-Industry Exhibition I'm going to offer my

advice based on personal experience of 13 years as a manufacturer and three years as director and one year as president of this august body of big business men. That is to consider carefully whether holding the conventions and exhibits in Chicago year after year does not have more disadvantages than advantages.

### MOVING THE SHOW?

We have to take this show to the audience for at least the next few years. There are not enough attractions possible today, or next year, or the next, to bring Mr. Buyer from the East Coast, the South, the West Coast.

Let's consider alternating—go East to New York or Philadelphia or Boston, then to St. Louis, Cincinnati, Cleveland, or Detroit.

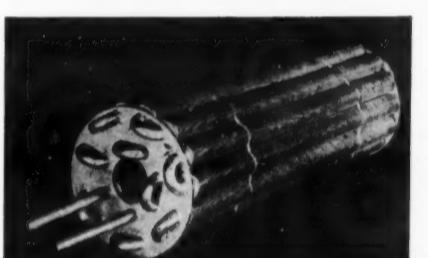
This consideration will involve the question as to "who do we want for our audience?" Do we want jobbers, RSES, ASRE, Air Conditioning Dealers Association, Unit Manufacturers, Steamfitters, Refrigeration Dealers and Distributors, or Architects?

Should we reserve a certain day or part of a day for any separate preview for any one or more portions of the industry? All these things must be considered by your next president and exhibit committee.

Should we exclude certain factors of the industry from our activities or certain individual companies? The answer remains with you as a group. Perhaps if we followed the dictates or wishes of all, we'd

(Concluded on Page 13, Column 1)

## No Joints! No Leaks!



This Rome Jointless Water Cooled Condenser is a typical example of Rome's ability to provide trouble free condensing equipment. Rome Water Cooled Condensers are used by many leading compressor manufacturers. Write for complete information.

## ROME-TURNEY RADIATOR COMPANY

222 Canal Street  
ROME, N. Y.

From  $\frac{1}{4}$  to  
**25 TONS**  
of refrigeration

Brunner Refrigerating and Air Conditioning equipment comprises air and water cooled condensing units for practically all types of commercial applications up to and including 25 tons of refrigeration... Catalog promptly on request.

Brunner Manufacturing Co.

Utica, N. Y., U. S. A.



FOR YEARS THE SYMBOL OF QUALITY

### IT'S MIDWEST BUILT, IT'S BETTER BUILT

#### Sell MORE with the COMPLETE MIDWEST Line

It's EASIER to sell when you offer MORE! You can go after—and GET—more business with the complete Midwest commercial line!

##### Full Line of 'Reach-In' Models

Real profit builders of 13.5 to 68 cu. ft. capacity. A model for every need.

##### Three Fine Display Case Lines

Two "Deluxe" lines and one "Leader" line give real value. 6, 8, 10 and 12 foot sizes.

##### New Midwest 'Walk-In' Coolers

Three types of new Midwest Standard Walk-In coolers. New high quality at competitive price.

##### DEALERS - DISTRIBUTORS

Some valuable territories still available. Write for full information on Midwest.

**MIDWEST MFG. COMPANY**  
GALESBURG ILLINOIS

EXPORT SALES DIVISION: 330 S. WELLS ST.  
CHICAGO, ILLINOIS, U. S. A.

## Report of Retiring Rema President

(Concluded from Page 12, Column 5) not permit our competitors to exhibit. We just have to reason that this association is representative of all the manufacturers of equipment parts and supplies for mechanical refrigeration.

And now my last little subject—several of our members are wholly unfamiliar with the activities of our trade association, because they have never attended one of the meetings. We have several others whose attendance has been poor. We try to keep them informed by press releases and reports, but if you who have attended and have taken an active part feel that you have gotten something out of it will try to get these others out also; then the future of the association is assured.

It might be well for me here to quote from a recent letter of one of our most active members, a man who has spared no time or expense on behalf of the industry's problems because he believes it is an investment. I quote:

"It has always been my policy to have the companies with which I have been connected, retain membership in Associations which deal with the type of business in which we are engaged. However, membership only has never been sufficient, as I have learned many years ago that a membership in a trade association cannot pay dividends unless a member is willing to put forth an effort and contribute his time to both association and industry problems. As long as our company retains memberships in any trade associations we shall be more than happy to contribute to our share of the expense, and put forth effort to make our membership in the association profitable."

To you who have not participated in the association's credit reporting service, let me say that you are missing something which alone is worth the dues you pay. Let me urge you to try it. Here again, the more that participate, the better are the results.

Reflecting back over our past and present activities, it appears to me that we are offering a fairly "complete line" to our members and prospective members. The degree to which you may consider your association dues an investment depends upon how much you can take out of it, and in order to take out you must be prepared to give in.

A couple of our members have suggested that we add a statistical service to our list of activities and to illustrate what might be done along this line I have had our secretary prepare for me a chart showing the distribution of jobbing outlets and location by geographical areas. This chart cannot very well be described in words and will be passed out to those present and will accompany a copy of this report.

## Virginia Smelting Pictures Growth, Map Outlets

WEST NORFOLK, Va.—A "Thank You" message, sent by Virginia Smelting Co. to customers, pictures the growth of the company during the last five years. Captioned "Look What You've Done to Us," the folder pictures the Virginia office organization and headquarters in 1935, as compared with 1940, to indicate its growth during that period. Outline maps below each picture show the spread of Virginia outlets during the same five years.

## 'Air-Cooled' Faucet Said To Eliminate Tap 'Spits'

MILWAUKEE—A new air-cooled faucet standard, designed to eliminate the "spit" from beer taps and prevent the waste of beer, has been announced by the R. Perlick Brass Co.

The faucet is cooled by a current of air originating at the evaporator and circulating through the faucet standard. This is said to eliminate the larger variations in temperatures usually found between the first and successive draws of beer.

## Electric Warehouse, Philadelphia Firm, Gives Up Appliances To Become Refrigeration Parts Jobber

PHILADELPHIA—The Electric Warehouse, located in the company's own building at 1320 Erie Ave. here, has recently announced the opening of a refrigeration and air conditioning parts and supplies wholesaling department.

The jobbing concern is now stocking lines of refrigeration and air conditioning, and also oil burner parts.

While the Electric Warehouse has in the past jobbed a line of replacement parts and accessories for washing machines, ironers, radios, vacuum cleaners, and small electrical appliances, it is adopting a new policy in adding refrigeration parts, inas-

much as on May 25 the company discontinued its wholesale and retail electrical appliance departments which they had been operating.

The company will continue to operate its machine shop for the rebuilding and overhauling of all electrical appliances, but machine shop work will be accepted now only through dealers and service men, stated William G. "Bill" Zuschlag, who is co-owner of the company with Jesse B. Hudson.

The Electric Warehouse was organized 15 years ago, and has had a steady growth as a wholesaler of electrical equipment and supplies in this area.

## Buffalo Service Engineers Hold Annual Banquet

BUFFALO—John Muller was installed as new president of the Niagara Frontier chapter of R.S.E.S. at the annual banquet meeting held recently at the Touraine hotel here. Retiring president was George O'Hara, Jr.

S. W. Strouse, director of the Buffalo Air Conditioning Council, addressed the meeting on the advancement of air conditioning in the area, and told of cooperative promotional plans. Gordon Burns, international president of R.S.E.S., also spoke. Ken Wood, president of the Ontario Maple Leaf chapter, headed a large Canadian delegation present at the affair.

## 140 Capital Salesmen Attend 10-Week Course

WASHINGTON, D. C.—An average of 140 salesmen attended the 10-week course in appliance salesmanship recently conducted by the Electric Institute of Washington. Meetings were held every Wednesday night, with registration free to salesmen of Institute members.

Alan Kershner, of the University of Maryland, directed the training course, each session consisting of the outlining of a set of sales principles by the instructor, their application to a particular appliance by a sales supervisor, and additional comments and examples by experienced salesmen. Weekly door and cash participation prizes were offered.

Streamlined to thinner than a lead pencil

## PEERLESS ENGINEERED TO SATISFY A MARKET WAITING FOR BETTER EQUIPMENT



## ZERO PADS

They're the latest way of doing the job better! Peerless Zero Pads—designed specifically to get the business in a booming new refrigeration field. For locker plants, sharp freeze rooms, beverage coolers, trucks, frosted food cabinets, etc., these streamlined cold plates can be installed as actual shelves, either singly or in batteries.

Clever engineering reduced their thickness to less than  $\frac{1}{4}$ "—all sheet steel, welded for lifetime service. No coils—refrigerant circuits are automatically formed in the steel plates and designed to operate with least possible pressure drop. Zero Pads are all prime surface! Available with or without eutectic solution chamber and finished with a corrosion-proof surface easy to keep clean.

## WATER SAVERS

Simplicity—the goal of all good designing—is evident in every line and part of the Peerless Water Saver. A climax to years of development work, Peerless engineers have weeded out of this unit every trouble-making, useless gadget... yet retained every feature proven essential to proper water distribution and unit capacity. You can bank on dependable performance with little maintenance.

The Peerless Water Saver is compact—you can move it through a 30" doorway. It's sturdy, in every way a Peerless Product. It cuts condensing water costs by as much as 95%, hence pays for itself in short order. That's why we say—"Cash in now on the Peerless Water Saver!"

**ASK YOUR REFRIGERATION PARTS JOBBER**

WATCH FOR THE NEW LOW-COST, BIG CAPACITY  
PEERLESS WATER SAVER—TO BE ANNOUNCED IN THE  
JULY ISSUE OF OUR HOUSE ORGAN, "THE PEERLESS  
X-CHANGER." BE SURE YOU ARE ON THE MAILING LIST!

## Peerless OF AMERICA INC.

Midwest Factory, General Offices—515 W. 35th Street, Chicago

NEW YORK FACTORY  
43-20 34th Street  
Long Island City

PACIFIC COAST FACTORY  
3000 South Main St.  
Los Angeles, Calif.

SOUTHWEST FACTORY  
2218 N. Harwood St.  
Dallas, Texas

EXPORT DIVISION  
P. O. Box 636  
Detroit, Mich.

You'll find full information on all Peerless Products in the big 1940 Peerless Catalog.

## Shop Layout, Mobile Equipment Gears Service Firm To Production-Line Basis

**Editor's Note:** This is the second of a series of articles on the operation of Bonded Refrigeration Service Associates, Youngstown, Ohio. The next article will deal with the design and operation of the special equipment in the repair shop.

By Robert M. Price

YOUNGSTOWN, Ohio—Carefully planned shop layout and efficient placement of machines and equipment enable Bonded Refrigeration Service Associates here to make repairs on a production-line basis. The shop has been designed in keeping with the firm's policy of "less work on the customer's premises" to make certain of complete customer satisfaction.

The practice of bringing a unit into the shop for repairs has added advantages for service men in that they can make more calls, and spend more time on selling new and replacement equipment to increase their incomes, it is claimed.

In explaining this policy, E. S. Wright, firm member, says: "Frequently when a machine has a discharge valve go bad it is an indication that the machine has been in use for quite a period and a careful check may show that there are several things to be repaired or adjusted. This is especially true of motors. We usually find them quite dirty and these we carefully clean and repaint and make sure all parts are in first class condition."

"We have had instances where a body was brought back into the shop and after it was completely repaired taken back and put on the base, we would discover a leak, possibly in the liquid receiver around the valve. We had not checked for this in the beginning because the

apparent trouble was a bad seal. It was necessary to remove again the entire unit in order to make this receiver repair. This, of course, had a bad effect on the customer, but we realized that if we had brought in the entire unit, motor and all, we would have been saved this experience."

The company does not believe in attempting to adjust thermostatic expansion valves on the job. "Because," says Mr. Wright, "we never found an expert who could do it on one trip without spending a lot of time."

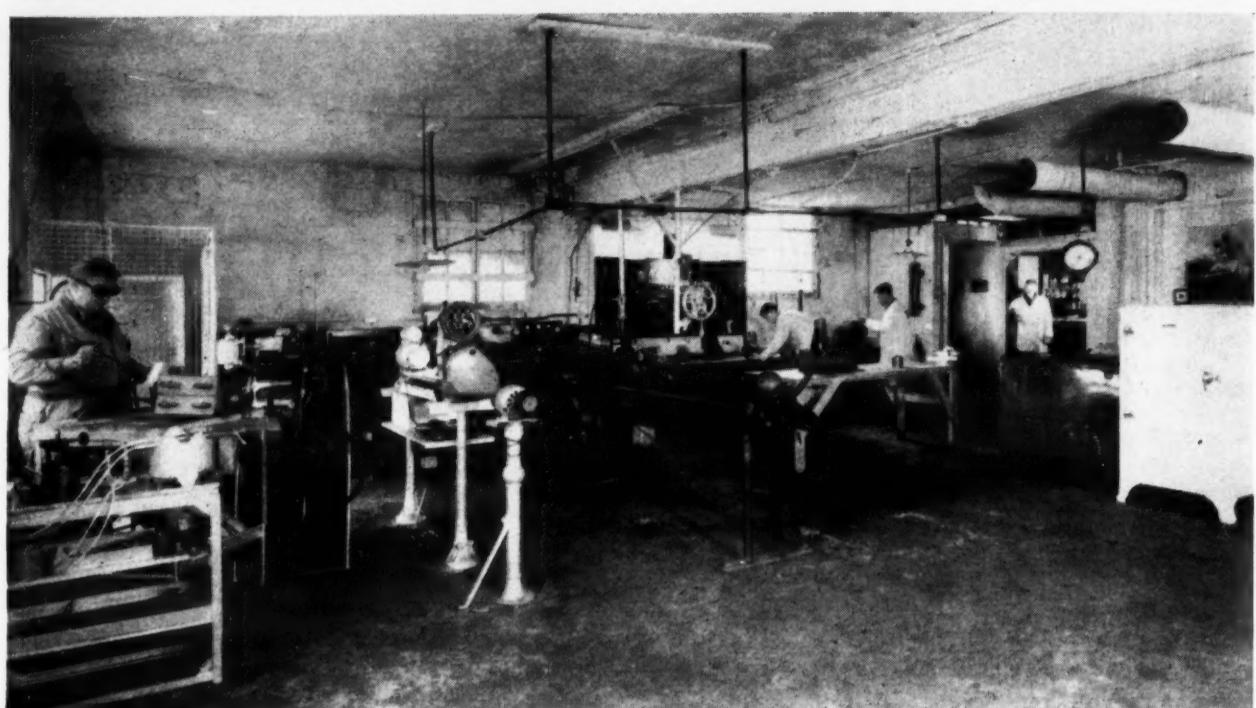
If a valve is giving trouble it is changed or exchanged and brought into the shop for test.

"Why?" asks Mr. Wright. "You can never get the customer to pay what it is worth to adjust a valve on the job. Also, it may not be the adjustment that is needed. If we exchange with one of our shop tested and adjusted valves or put on a new valve, we are dodging a lot of things, making a profit on the call, and making sure the customer is satisfied."

### SHOP SET-UP

The repair shop is geared to the repair policy. Two or three service men are at work in the shop at all times to keep repairs moving through on schedule. Tools, machinery, and testing equipment are

## Men and Machines Synchronized In Youngstown Service Firm's Shop



Left half of shop. Far left is welding table. Along back wall are test and assembly benches. Men at rear are working at the run-in bench. Center is work space and special machinery used for repair work.

placed to save time and space. The different repair operations have been studied so that machines and tools for similar operations are placed close together. Equipment, such as a large 18-inch vise, is moveable. The silver soldering bench is also on casters so that it can be moved to different parts of the shop.

In the center of the shop is the work space. This space, surrounded by the equipment, machines, and tools, affords plenty of room for repair work, yet is closely accessible to all shop equipment. In the center of the space electric outlets are suspended for testing operations.

The shop is located in the basement of the firm's building, a truck ramp leading in from the ground level. Next to this ramp, along the wall, are grouped the welding machines and benches. These soldering stands are movable, connected to gas and air lines extending to different parts of the shop.

### MOTORS AND VALVES TESTED

Along one wall is a test bench for motors, thermostatic expansion valves, and controls. Above this bench are cupboards for parts, supplies, and tools for these operations. Next to this bench is a small dryer oven. Next to this oven is an assembly bench. Here the tools and supplies for these operations are kept on a neat rack.

Next to the assembly bench is the run-in bench for testing compressors. The large movable vise, used in some compressor repair operations, is kept near the assembly bench. A tank used in immersion testing is placed next to the run-in bench.

A rolling bench is used to take the tested parts back to the assembly bench. This arrangement is easier, faster, and minimizes the chance of getting the parts mixed in transit. The spray booth is next to the immersion tank against the far wall.

Against the other side wall is the dehydrating oven, also used in putting the finish on small cabinets. A vacuum pump is mounted on the top of the oven, the vacuum lines extending over the top of the shop to the assembly and work bench.

Alongside the oven is the charging rack with the compressor for the charging operation mounted on the wall near the charging drum. In one corner of the shop, against this same wall, is a cleaning tank. The unit to be cleaned is set on this rack and blown off with a spray gun. The fluid in the cleaning tank is a compound that cleans and rustproofs the immersed parts and units.

### METAL BRAKE AND SHEAR

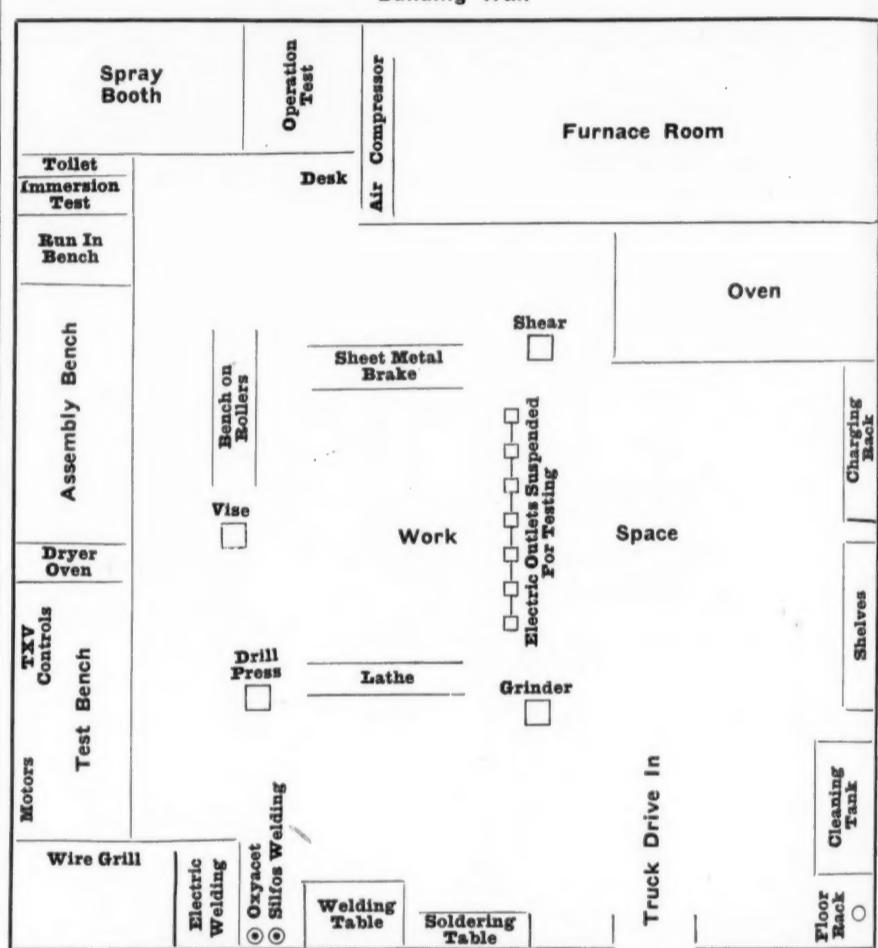
Outside the center work space are the sheet metal brake and a shear. On the other side is the grinder, a 10-inch lathe, and a drill press, so placed that their operation does not interfere with the line of production on regular routine repairs.

Above the shop is the parts stock room equipped with steel bins. The manager's office is on this floor, and the general office where the service call dispatcher's desk, and the service manager's desk is located next to the stockroom. This office is connected to the repair shop by a stairway so

(Concluded on Page 15, Column 1)

### Detailed Layout of Shop

Building Wall



## Low-Priced Conditioning Unit Usable All Year Offers Important Selling Advantages

### Unusual Opportunity for Distributors and Dealers

**WIZARDAIRe Units** are the product of master designers with years of experience in creating electric refrigerators and air conditioners.

**FEATURES**—Year around utility; dependable performance; maximum filtered ventilation and exhaust without running the hermetically sealed compressor. Attractive, compact, sturdily built.

Designed for effective sales appeal. Destined for a high place in the Unit Conditioner Field.

**DISTRIBUTORS and DEALERS—** Write at once for important information on WIZARDAIRe—the conditioner having real sales advantages.

**CERTIFIED PRODUCTS CO.**  
2014 N. 14th St., Toledo, Ohio



## Turn BIDS into ORDERS with GR-LIPMAN EQUIPMENT...

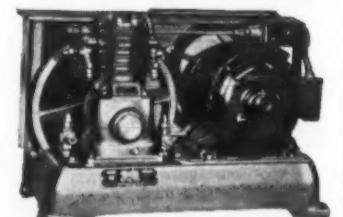
It's one thing to "bid" on an air conditioning or commercial refrigeration job. But it's an entirely different matter to convert the "bid" into an ORDER.

Your chances are most favorable to "get the order" when you have a complete line to offer the "customer" . . . supported by a long record of successful performance in every type of service. That is why we say: "Turn BIDS into ORDERS with GR-LIPMAN EQUIPMENT."

More than twenty years of service economy, operating efficiency and dependability stand back of this well-established, reputable line. A strong manufacturing, sales and engineering organization stands back of YOU . . . always ready to cooperate both with you and the customer. . . . We're looking for a few more dependable distributors and dealers . . . and if you think you can fit into the picture . . . let's get together right away . . . Write:



*Self-Contained Store Cooler and Air Conditioning Unit, above. Refrigerating units are available in air- and water-cooled types, employing Ammonia, Methyl Chloride or Freon-12 refrigerant.*



**GENERAL REFRIGERATION CORP.**  
Dept. AC-640 Beloit, Wisconsin



## Marked Men

Every Ansul cylinder is a "marked man." For every Ansul cylinder is individually analyzed—a written guarantee to you that Ansul refrigerants are just what we say they are—pure, clean, dry.

### ANSUL SULPHUR DIOXIDE METHYL CHLORIDE

ANSUL CHEMICAL COMPANY • MARINETTE, WIS.

AGENTS FOR KINETIC'S 'FREON-12'

## Pleasantaire

FINEST NAME IN AIR CONDITIONING  
MOST VALUABLE FRANCHISE  
in the WINDOW-TYPE FIELD

Pleasantaire Corporation, Tower Bldg., Washington, D. C.

## Planned Shop Layout Speeds Service Work Of Youngstown Firm

(Concluded from Page 14, Column 3) that the shop work can be co-ordinated and regulated according to service calls recorded. On the upper floor is the engineering office and drafting room.

The responsibilities of maintaining shop development and production is divided between Mr. Wright and J. J. Eagan, who is shop and service contract manager, the firm taking many service contracts on a yearly maintenance basis. In addition, Mr. Eagan has charge of ammonia maintenance, general service and installation, and relief service.

In direct charge of installation and service is E. H. Grocott. He has two men under his supervision who also work in the shop when necessary. Service Manager Grocott is responsible for installations, maintenance contract service, trouble shooting, and new and replacement equipment sales by service men. One of the shop men has charge of shop records and tools.

The company, according to Mr. Wright, believes in keeping up-to-date in both shop equipment and information on repair methods. The shop layout and development of the machinery was the direct result of careful study of the best methods.

Service men are required to keep step with these developments. To aid them in keeping pace, a "service man's library" is installed in the general office. Catalogs of different companies, service manuals, and trade papers are kept in an up-to-date file.

Much of the shop equipment was designed and built by the company itself. This includes the large dehydrating oven, the dryer oven, charging rack, run-in test bench, the cleaning tank, soldering bench, and tool racks. The cost of this equipment was not great and in building it to suit their own needs the company drew many advantages in time and efficiency, they say.

## Milwaukee Dealers Move To Clean Up Appliance Servicing Practices

MILWAUKEE — Suggestions on "cleaning up" and improving appliance servicing practices among Milwaukee retail appliance dealers have been presented to Wisconsin Radio, Refrigeration & Appliance Association by Milton Peters, business agent of the Servicemen's Union, B-1092.

The union, Mr. Peters said, is prepared to assume leadership in improving local servicing practices, provided it gets the support of dealers and distributors. His suggestions were:

"1. That all listings in the phone book of radio and appliance establishments be authorized by the distributor only, and that only those meeting the requirements be so authorized.

"2. That unfair, unethical, or dishonest ads from any firm be protested against, and no firm that continues or insists in such practice be authorized to sell or service by any distributor.

"3. That any firm doing authorized service shall be equipped to do a complete service, and use genuine replacement parts or superior parts.

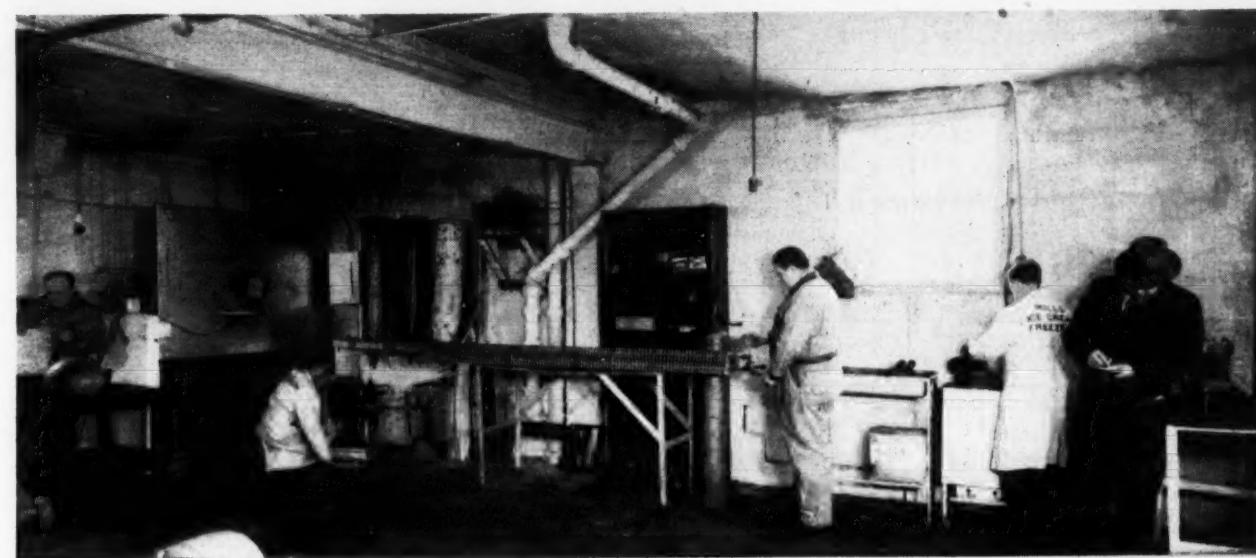
"4. That all listings of authorized firms be cleared between the distributor, the association, and the union.

"5. That for the benefit of the public we consider two lists of "radio business" only—one alphabetically, as heretofore, and one with the list broken down into "city sections," north, west, etc.

"6. That any question of ethics in advertising be left up to the Better Business Bureau.

"The union believes that it is only with honest cooperative effort that the radio and appliance business can be made to pay the legitimate members of this industry the profit which they have rightfully coming. Since advertising, due to laxity, has been exploited dishonestly by a few, we feel that both the public and the trade can gain only by cooperating in remediating this situation," Mr. Peters said.

## Service Men Work With Shop-Built Equipment



This view of the Bonded Refrigeration Service shop, Youngstown, shows the dehydrating oven at the left rear. The charging rack is at the right against the rear wall. The man, second from right, is working at the cleaning tank where repaired parts are immersed in a special cleaning and rustproofing fluid. Most of the equipment shown was designed and assembled in the shop.

## Cincinnati ASRE Will Discuss Frozen Foods And Locker Plants

CINCINNATI—Frozen foods and locker plants will be the principal topic of discussion at the June meeting of the newly organized Cincinnati section of American Society of Refrigerating Engineers, scheduled for the Cincinnati Club at 6:30 p.m. on June 6.

In addition to a talk on locker plants and frozen foods by R. B. Breneman, Armstrong Cork Co., section members will view two movies, the first a technicolor presentation of frozen citrus juice packing, and the second the Birds Eye film on quick freezing, "Imprisoned Freshness."

Second part of the "double-barreled" educational program will feature a talk on drying agents, their properties, uses, handling, and applications, by W. A. Hammond, inventor of Drierite.

**Don't Guess!**  
Check these outstanding features  
and know why your choice must be

**PAR**



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APPEARS ON EVERY PAR UNIT.

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MODERN EQUIPMENT CORPORATION

DEFIANCE, OHIO

## Midwest Dealers See 'Cool Breeze' Units

OMAHA, Neb.—Preview of the new Airtemp "Cool Breeze" portable room cooler was staged here recently before 150 Airtemp dealers of Nebraska and western Iowa. This sales meeting was conducted by R. L. Zak, Airtemp regional manager, and Wallace Ardussi, the company's western sales manager. Robert A. Rigley, manager of the Airtemp division of the Sidles Co. here, was host.



Mills Condensing Units  
By Mills Novelty Company  
4100 Fullerton Ave., Chicago, Ill.



## Chicago Edison Show Has 30 Exhibitors

CHICAGO — Approximately 30 manufacturers will exhibit at the 1940 Air Conditioning Show, to be held by the Commonwealth Edison Co. in the company's downtown store June 14 to 22. All types of air conditioning and air handling equipment will be exhibited.

Special features will include two penguins from Chile, an electrically air conditioned automobile, a display of weather forecasting and recording instruments, and a wind tunnel employed by manufacturers to test the efficiency of ventilating fans.

## Canadian Cooling Board Names Mason Chairman

TORONTO, Ont.—W. G. Mason, of General Steel Wares, Ltd., has been elected chairman for the ensuing year of the Air Conditioning Industries Branch of the Toronto Board of Trade. J. W. O'Neill, Trane Co. of Canada, Ltd., was named vice chairman.

Executive committee will be composed of C. R. Davis, Davis Automatic Controls Co.; H. G. Hill, Gurney Foundry Co., Ltd.; R. H. Lock, J. H. Lock and Sons; H. R. Roth, Canadian Sirocco Co., Ltd.; E. C. Williams, Canadian General Electric Co., Ltd.; and W. H. Evans, Minneapolis-Honeywell, Ltd.

## Air Cooled Operating Room Gives Patient Better 'Break,' Reduces Fear of Hot Weather Surgery, Physician Says

PITTSBURGH — Air conditioned operating rooms make the patient a better surgical risk, particularly in the presence of any illness affected by excessive summer temperatures, according to Dr. Murray B. Ferdeber of the University of Pittsburgh School of Medicine, chairman of the A.S.H. & V.E. committee on air conditioning in treatment of diseases.

Studies made at the Elizabeth Steel Magee Hospital here, Dr. Ferdeber reports, show that air conditioning also conserves the strength of the surgeon and his staff, and at the same time reduces the concentration of anesthetics in the operating room. Of further importance is the fact that the "psychic fear" of surgery during hot weather is greatly reduced.

"It is a known fact that the operating room personnel frequently works under the most undesirable conditions, especially during the hot summer months when both surgeon and patient suffer from the excessively uncomfortable conditions of an operating room," Dr. Ferdeber said. "During extremely hot weather, rather high dry bulb and wet-bulb temperatures were known to exist, and I can recall one hot August morning in 1937 when the dry bulb in this same operating room was 96° F.

"It seemed reasonable to assume that alleviation of these conditions might in a great measure go far to

preserving the health of the operating room force and facilitate a more rapid recovery for the patient.

"An operating room was chosen and adjacent to it a recovery ward was constructed, where post-operative patients were immediately placed after removal from the air conditioned operating room. In the original construction of the hospital there were some few warm air ducts in the attic above the experimental rooms, and, since these were antiquated and had never been used, even the thought of incorporating this old equipment was entirely dismissed.

"Therefore, between the two rooms a compartment for housing the conditioning equipment was provided for, and the apparatus installed. In design, provisions were made for bringing in outside air through a duct containing a pre-heater, cloth air filter, and electrical precipitator.

### AIR WASHER USED

"Part of the air is drawn through an air washer and reheater by a fan, which discharges this air through six outlets to the operating room. The remainder of the air which may be mixed with recirculated air from the recovery ward is drawn over cooling coils and a reheater by another fan, and delivered to two outlets in the recovery ward. The complete system supplies 1,200 c.f.m. to the operating room, and approximately the same amount, including up to 50% recirculated air, to the recovery ward.

"A 10-ton dichlorodifluoromethane ('Freon') compressor is used for refrigeration by a shell-and-tube exchanger. The system consists of storage tanks, pumps, and thermostatic controls circulating water through the washer, providing cooling and humidification control for the operating room, and also through the cooling coils, supplying cooling and dehumidification for the recovery ward.

"This complete mechanical system allows reasonably easy control over both the temperature and dewpoint of the air supplied to the operating room as well as temperature, and to a smaller extent, moisture content of the recovery ward. In addition, an ultra-violet lamp for sterilization of the air was installed.

In choosing the proper conditions we had little or no previous data to rely on, except complete studies which had been carried on earlier by the A.S.H. & V.E. research laboratory in Pittsburgh and elsewhere. By system of voting, especially since operating room attendants had no knowledge of temperature readings, the questionnaires indicated not only the reactions of these persons but also their wishes for greater comfort.

"Summarizing the data we found that for ideal comfort 85% of our operating room personnel voted for conditions between 68-69° effective temperature. At 62° effective temperature there were fewer persons comfortable, and at 74° effective temperature only 35% were comfortable. This agrees with the original observation carried out in comfort studies for office workers.

### BODY HEAT STABLE

"We found also that despite assertions regarding the severe drop in a patient's body temperature during operation, that the maximum fall in temperature was only 3° F., indicating that we had been misled by previous investigations regarding the effects of anesthesia on body temperature.

"In the recovery room, post-operative patients seemed to improve more rapidly, but we have no tangible data regarding this finding. However, we were not troubled with post-operative complications and this, too, may be disregarded because the number of patients is still too small to rule out any accidents.

"Little information is available from our study regarding ultraviolet light radiation, due to some inconvenience in the wearing apparel to protect the workers.

"In a recent study carried on by this committee under the active supervision of Dr. W. Leigh Cook, Jr., studies of bacterial content of the air in the air conditioned

and non-conditioned operating rooms were carried out. While there were no pathological organisms in the air of the conditioned room, a small number of pathological bacteria were found in the non-conditioned room. In addition to this, the count itself for all organisms as an average in the conditioned room was low, although occasionally there would be some tendency for the air in both rooms to approach an equilibrium.

"The costs for such a venture were very difficult to evaluate, because some of the equipment was loaned, some donated, and others sold at extremely low prices. In addition, the intangible costs to the hospital management were such that here again we could place no strict valuation on such services as medical, technical, and labor personnel.

"We feel, however, that from this study not only will valuable information be obtained, but design of equipment will also change to accommodate any particular area in any other hospital in this country.

### SEVEN ADVANTAGES

"We do feel, however, that a properly conditioned operating room and recovery ward have the following advantages:

1. The comfortable conditions may prove advantageous to the surgeon in conserving his own strength thus permitting greater efficiency, greater output of work, and relief from fatigue.

2. The patient is not subjected to excessive atmospheric temperatures and would, therefore, be considered a better surgical risk.

3. Those patients who have surgical conditions in addition to other illness affected by high temperatures, should receive a greater amount of benefit from air conditioning.

4. Because of outside air being used the concentration of anesthetics is thereby reduced.

5. The recovery room makes for greater comfort to the patient after operation.

6. The absence of large gradients in temperature should in some measure aid in the prevention of post-operative pneumonia.

7. The psychic fear of surgery in excessively hot months of the year should be greatly reduced."

**Anaconda Copper Refrigeration Tubes**

"Assembling instructions" details page 11 of new book

**THE AMERICAN BRASS CO.**  
FRENCH SMALL TUBE BRANCH  
General Offices, Waterbury, Conn.

**MASTERCRAFT ADJUSTABLE PAD and CARRYING HARNESS**

Efficient, sturdy and economical. Provides safer handling protection of refrigerators. Pad and harness are separate units and both adjustable to practically all styles and sizes of cabinets.

Adjustable Pad \$8.75 each  
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f.o.b. Chicago.

Lettering on pad at only \$1.00 per order extra. Write for latest folder and prices on pads for refrigerators, washers, ironers, ranges, radios, etc.

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Alco Thermo Valves are carefully engineered, precision manufactured and thoroughly tested under all possible operating conditions. By increasing the efficiency of the evaporator they save money in both installation and operating costs — contribute much to improve the performance of any unit.

The experience of Alco engineers is second to none in the entire field of refrigerant control. Their recommendation as to the correct application of Alco Valves to any installation is always available to you. Write today.

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## N. Y. Fair's Only 'Cold Dog Stand'



"Dog-tired" visitors at the New York World's Fair this year will get relief from burning bunions at the "Cold Dog Stand" at the Carrier Igloo, where feet will be cooled by air conditioning. Margaret Ingels, Carrier engineer, conceived the foot-cooling station after a trip around the Fair.

## New Screen Reflects Radiant Heat, Reduces Solar Load on Windows

CHICAGO—Reductions in the solar heat load on windows is said to be possible through use of the "Koolshade" sun screen, recently announced by the Ingersoll Steel & Disc Division of Borg-Warner Corp.

The new screen is constructed like a miniature venetian blind, with "slats" so tiny they are made of flat wire, narrow as a pencil lead and paper thin. Vertical wires spaced  $\frac{1}{2}$  inch apart hold the flat horizontals at a fixed angle, calculated so that it completely shuts out direct radiation from the sun during the heat of the day in all seasons. The mesh of the fabric is so fine that it is barely visible, it is said.

It is claimed that the new screens shut out 80% of the sun's rays before they strike the window, thus reducing the sun effect on the glass in this proportion. The screen does not shut out light, view, or breeze, and eliminates the necessity for awnings.

The fabric is made of a fine grade of bronze. Framing and installation of the Koolshade is the same as for ordinary full length fly screens.

### Cross Country Buses Get Cooling Systems

PHILADELPHIA—Another new fleet of transcontinental buses equipped with year-around air conditioning is being completed for Santa Fe Trailways by the American Car & Foundry Co. The contract for air conditioning the buses was awarded to Carrier Corp., which has supplied equipment to nearly 150 Santa Fe buses.

The new coaches are insulated, soundproof, and have air conditioning units said to be capable of reducing the temperature from 100° outside to 80° F. in the bus, with a comparable reduction in relative humidity.

### Three Hundred Tons Added To G.M. Fair Exhibit

NEW YORK CITY—Three hundred tons of air conditioning equipment have been added to the General Motors Highways and Horizons exhibit building at the New York World's Fair this year. Largest of the new areas to be conditioned are the three sections of the automotive exhibits, including the car, truck, and Diesel exhibits.

To complete the project, self-contained units have been installed in the map lobby and the automotive parts display in the adjoining lobby. All equipment used was supplied by Frigidaire.

### Kramer Trenton Issues New Coil Catalogue

A brand new catalog of its complete line of air conditioning coils has just been issued by Kramer Trenton Co., Trenton, N. J.

This catalog first describes the construction and application of the company's "Turbo Fin Surface," then goes on to list selection and application data for the Kramer lines of direct expansion coils, steam coils, and water coils.

The catalog is packed with tables on air volume, air properties, and mean temperature differential, and also includes a psychrometric chart.

## Hotel Men Give Pros & Cons on Cooling

MINNEAPOLIS—Necessity of raising room prices to cover the cost of air conditioning equipment, the resistance of guests who have had the experience with "cold and clammy" air conditioning, and the poor cooperation of guests who leave windows open, were given as reasons for keeping purchase of room coolers for guest room use at a minimum by certain hotel managers here recently.

The managers have found that the normal range of room prices must be raised to cover the cost of original equipment, unless the units are used to help sell the more expensive rooms. Some guests reject air conditioning entirely, and others reduce the effectiveness of the equipment by leaving windows and transoms open.

On the other side of the ledger is the experience of the Hotel Nicollet, where units have been used for three years and where six  $\frac{1}{4}$ -ton conditioners were installed one year ago. The equipment produced about \$60 per room in additional business for the season, the hotel reported.

The Hotel Raddison also reports that the installation of four window units in a private dining room seating 40 persons has made possible the booking of considerable additional business from luncheon clubs.

The Radisson uses 26 room coolers in "higher price" guest rooms to encourage sales of rooms in this classification.

### Self-Contained Units Lead Manhattan Sales

NEW YORK CITY—Contracts for 280 air conditioning systems were landed by dealers and distributors in the New York area during the first four months of 1940, according to reports made to Consolidated Edison Co. and subsidiaries.

Self-contained units accounted for a sizeable portion of the business, reports for the period showing sales by dealers of 179 units of  $1\frac{1}{2}$ -hp. capacity or less and an additional 69 units of 2-hp. size or larger.

The 280 contracts reported in the year so far have an aggregate capacity of 9,157.95 hp., with self-contained units accounting for 443.82 of this load.

Restaurants led all business establishments in installations for the period, 47 jobs being reported. Private offices and retail stores were next in line, and 20 residential installations were reported.

Following is a classification of installations through April, by type:

Residential	20
Banks	2
Barber Shops	4
Clubs	2
Funeral Parlors	2
Hospital Laboratories	2
Hotel Guest Rooms	2
Hotel Public Room	1
Office Buildings	5
Doctors' Offices	6
Private Offices	40
Public Building	1
Restaurants	47
Showrooms	16
Department Stores	6
Retail Stores	33
Theaters	11
World's Fair	4
Misc. Commercial	57
Brewery	1
Candy Mfg.	4
Fur Storage	6
Instrument Mfg.	1
Laboratories	2
Meat Packer	1
Warehouses	3
Misc. Industrial	1
Total	280

## Gifford Made Head Of Buffalo ASH&VE

BUFFALO—Clarence A. Gifford of American Radiator Co. was elected president of the Western New York chapter of A.S.H.V.E. at the society's May meeting here. William R. Heath of Buffalo Forge Co. and Harry C. Schafer of Iroquois Gas were named vice presidents; Seeley Quackenbush, Quackenbush & Co., secretary; and Mertram C. Candee was elected treasurer.

Directors elected were Myron C. Beman, Joseph Davis, David J. Mahoney, and Roswell W. Farnham.

Guest speaker of the evening was Howard L. Volgenuau, chairman of the housing division of the Buffalo chamber of commerce.

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Water Coolers—Filters  
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Dealers Wanted for Midwestern and Southern States

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## THE NEW KOCH Crispeteria



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Household and Commercial Control Replacements of characteristic Ranco dependability—built to save the time of service men—are ready for you now, at your jobber's.

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**New Motor Bulletin**

**EAST PITTSBURGH, Pa.**—A new four-page bulletin describing a.c. and d.c. fractional horsepower motors in sizes from  $\frac{1}{20}$  to  $\frac{1}{2}$  hp., and designed especially for small industrial machines and home appliances, has been announced by Westinghouse Electric & Mfg. Co.

All motors are obtainable in 11 different frame styles, as illustrated and described in the bulletin. Complete electrical information for each motor type is given.

**Sherer EQUIPMENT CINCHES SALES AND PROFITS IN 1940**

Cinch the sale by making the complete installation. Sherer offers a complete line of fire leaders, plus whole-hearted factory cooperation. Write for catalog and franchise details.

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**DIAPHRAGM PACKLESS VALVES**  
No Tube Bending  
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**PREVENT WAX and CARBON with an AMINCO Oil Separator**

Aminco Oil Separators remove oil from gases as they leave the compressor and return it automatically to the crankcase; preventing oil-lagged evaporators and increasing the efficiency of the unit. Helps to prevent the formation of hard carbon and wax deposits by separating entrained moisture from the oil and settling it in a sump where it can do no harm.

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**SERVEL Model J**

4 cylinder compressor! New, in original factory crates, ideal replacement unit! Complete with  $\frac{1}{2}$ " SAE intake and  $\frac{1}{2}$ " discharge valves and flywheel. Bore 1%, Stroke 1%. Current model.

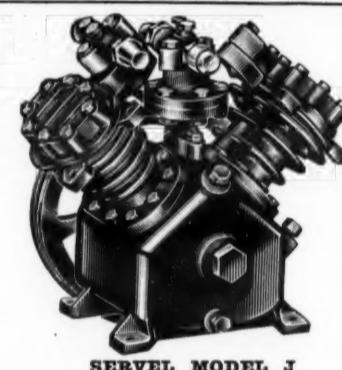
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4 cylinder  $1\frac{1}{8}$  x  $1\frac{1}{8}$

Conventional and **HERMETIC**  
Hermetic units, careful  
Inspection, advanced  
Engineering, selective  
Fits, close  
Tolerances.  
Alloy steels and normalized  
Iron used in all parts.  
Noted for quietness and efficiency.



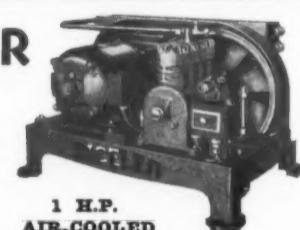
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**'Do It Right or Not At All' Is Service Firm's Slogan**

Tom Callison (left) and Steve Stedman, partners in a Dayton, Ohio refrigeration service business, work on a compressor which they have just brought into their shop for repair.

**Benzene Rather Than 'Carbon Tet' Advised For Flushing Refrigeration Systems**

Benzene rather than carbon tetrachloride should be used in flushing out a system to remove oil sludge, it is recommended in a new technical booklet on the dehydration of refrigeration systems, recently put out by Highside Chemicals Co.

Says the booklet in an analysis of oils and oil problems in refrigeration systems:

"Oils for refrigeration use are carefully processed, dry, and free from most of the objectionable constituents of oils. It is difficult to understand why such highly refined oils, at the relatively low temperatures in refrigerating systems, should form any great amounts of sludge, or act in a corrosive manner—unless oxygen, water, and acids are present.

"Oil trouble can be roughly divided into two types.

"(1) Sludging and corrosion which occur in a carefully serviced system in which oxygen, acids, and water are absent. Under these conditions trouble is mostly likely due to the use of low grade oil. This condition is not always easy to detect, as records of the type of oil used must be consulted. The remedy is to install a new charge of good oil plus Thawzone to take care of the traces of the old oil remaining.

"(2) Sludge and corrosion occurring in a system which contains oxygen, with or without water or acid. Oxygen is enough, for if present it will react with the oil to form acids, organic peroxides, considerate water, and other materials.

"Furthermore, oxygen is not inert toward halogenated refrigerants and under special conditions there is the possibility of their being oxidized to material related to formic and other

aldehydes. These are potential sludge forming materials and in conjunction with oxidized oil, the possibility of combination resins being formed must not be overlooked. Resin formation is slower under slightly alkaline or neutral conditions and by the removal of acids, the rate of sludge formation is slowed down.

"If sludge forms when a machine is in operation it is deposited out of the oil refrigerant mixture, appearing largely in the receiver and the crankcase. It follows that methyl chloride, 'Freon,' and similar compounds do not dissolve this sludge.

"When called upon to service a unit containing such sludge, the practice has often been to flush the system with carbon tetrachloride. This material, which is similar to the refrigerant, naturally will not dissolve any quantity of sludge, since it precipitated from methyl chloride and 'Freon' solutions in the first place. These sludges are considerably more soluble in hydrocarbons and often when a new charge of oil is added it has a loosening effect which causes the sludge to start circulating around the system.

"Benzene should be used in the shop as a flushing material to remove sludge. Also in the shop, oil should never be handled under air pressure.

"In the field, units containing sludge in quantity should have adequate filters installed. If this proves inadequate, the unit will have to be blown down. If only moderate amounts of sludge are present, Thawzone can be used and will tend to stop corrosion and reduce further sludging."

**V-Belt Guide Issued By Gilmer**

PHILADELPHIA — New horsepower ratings for multiple belts are among the features contained in a 96-page "Guide to Efficient V-belt Practice" just issued by L. H. Gilmer Co. A full-size book, it is profusely illustrated with photographs in color, and with diagrams and charts.

Multiple and fractional horsepower V-belts are both included in this one book. It contains a complete section of sheave information that covers also flat pulleys for V-to-flat drives, and adjustable diameter and companion sheaves. Besides standard sheave-combinations

listings for complete V-drives, there is an engineering section for the designing of special drives, with formulas, description of special-use V-belts, and handy tables for engineers.

Innovations include a discussion of WR<sup>2</sup> flywheel effect; a new arrangement of application correction factors; and a new tint-block color system for arc of contact correction. Color blocks are used to identify stock sizes, and two indexes simplify the use of the guide, designed as a useful engineering handbook on complete V-belt drives.

**No 'Halfway Measures' For Two Dayton Service Men**

DAYTON, Ohio—Tom Callison and Steve Stedman are refrigeration and air conditioning service men. They run a service shop of their own—under the name of Callison and Stedman—in the garage back of Tom's house here.

Both men are conscientious craftsmen who believe that a job worth doing at all is worth doing right. They operate their service business strictly on this principle.

Here is an example of how it works out. Whenever a customer places a service call with this firm, either Tom or Steve goes out to look the job over. After an on-the-spot check-up, the fellow handling the call gives the customer a rough estimate of what would be necessary to fix the equipment the right way—to put it in proper running order.

If the customer is unwilling to go to this trouble or expense, both Steve and Tom will pass up the job entirely rather than do a half-way makeshift job which they feel will never give satisfactory service.

This may be a rather drastic policy, and it may have its disadvantages. But it does result in one thing—it means that Tom and Steve sell plenty of replacement parts.

For, rather than attempt to patch up a faulty piece of equipment which they feel can never be made to give satisfactory performance, they insist that the customer either allow them to install a replacement for the worn unit or that he take his business elsewhere.

And more often than not the customer recognizes the sincerity of their convictions, and agrees to follow their advice.

This policy, Tom and Steve feel, is the only one that can lead to satisfied service customers, and thus the only one on which a sound and lasting service trade can be built.

Although both Tom and Steve have been actively engaged in refrigeration servicing work for about five or six years, they have been in business together for themselves only a little over a year. Previously they worked side by side as employees of another local service shop.

Their shop, as mentioned before, is in Tom's garage, and Tom's wife serves as the outfit's "office manager," answering the phone and keeping the records.

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PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

### POSITIONS WANTED

AIR CONDITIONING and refrigeration engineer—experienced in process and comfort air conditioning and commercial refrigeration. Three years experience in design, installation, service and sales, both with small dealer and prominent manufacturer. Member ASRE. Age 27, married. Desires permanent connection with responsible firm. Address Box No. 1235, Air Conditioning & Refrigeration News.

POSITION WANTED by a commercial refrigeration service engineer. I am a graduate of the Industrial Training Institute, can go anywhere to accept a position and am willing to start as a helper and

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at a small salary. For further reference write R. G. MARTZ, R1, Taberg, N. Y.

### SALES MEN WANTED

COMMERCIAL REFRIGERATOR and display case salesman of proven ability. Able to close sales personally, and capable of organizing and managing sales force. Several desirable openings in various sections of the country. Must be able to furnish bond. Salary or drawing account to qualified applicants. Write Box 1216, Air Conditioning & Refrigeration News, listing experience and qualifications.

### REPRESENTATIVES WANTED

MANUFACTURER'S representative to contact dealers and manufacturers for rapidly expanding line of liquid coolers. National promotion campaign now underway. Valuable territory franchises open. Write complete details as to past sales experience, lines now handled and territory covered. COMMERCIAL COIL & REFRIGERATION CO., 455 North Artesian Avenue, Chicago, Illinois.

### FRANCHISES AVAILABLE

INVESTIGATE the possibilities for profits this season with the new "Magic-Flo" Beer Dispensing System. Priced to sell. Direct from manufacturer. Inquiries from responsible dealers solicited. Write for territories available. BEER SYSTEMS CORPORATION, 1400 W. 25th Street, Cleveland, Ohio, Dept. MF 101.

DIRECT FACTORY connection. Sell Refrigerator Display Cases, Walk-In Coolers, Reach-In Refrigerators, Refrigerating Units, to Meat Markets, Grocers, Taverns, etc. Financing arrangements to help sell. Write Dept. A for full information or see EHRLICH REFRIGERATOR MFG. CO., St. Joseph, Mo.

SEND FOR PRICES and literature on the General 1940 all streamlined refrigerator display case line. Over 40 years experience manufacturing good commercial refrigerators. On a comparative price test with other makes of equal specifications, prices are lowest in the country. GENERAL REFRIGERATOR & STORE FIXTURE CO., 5th & Bainbridge Sts., Philadelphia, Pa.

### EQUIPMENT WANTED

WE BUY UP Manufacturers, Jobbers, Dealers Bankrupt, surplus and discontinued merchandise and equipment. We are interested in motors, compressors, controls, valves and parts, send us a list of equipment you have. R & R REFRIGERATION JOBBERS, 508 Morris Ave., Bronx, N. Y. (Export Agents.)

### EQUIPMENT FOR SALE

COMPLETE air-conditioning system consisting of 2-7½ H.P. Westinghouse condensing units, 3-Floor cabinets, 6-Ceiling units. Complete. Traded in for larger system. Will consider any reasonable offer. KEIL MOTOR COMPANY, 11th & Tatnall Sts., Wilmington, Del.

BRAND NEW General Electric and Frigidaire units complete with pressure control:  $\frac{1}{2}$ ,  $\frac{1}{4}$  and  $\frac{1}{2}$  Horse Power. New  $\frac{1}{2}$  and  $\frac{1}{4}$  Horse Power Frigidaire compressors. New  $\frac{1}{4}$  and  $\frac{1}{2}$  Horse Power General Electric bent over compressors. All brand new merchandise packed in individual cartons. GENERAL REFRIGERATORS CORP., 518 East 20th Street, New York City.

### REFRIGERANTS

FREEZ-O, the perfect Meter Miser replacement refrigerant, used without any change in unit construction or oil change. \$1.50 per pound. Send your cylinder to THE STANDARD REFRIGERATION CO. OF PITTSBURGH, 1148 Dohrman St., McKees Rocks, Pa.

### SERVICE SUPERVISION

MANUFACTURERS ATTENTION we can reduce your regional service costs by locating, examining, qualifying, training and supervising service outlets in the Tri-state area, maintaining your parts depot with 24 hour shipping service. Highly trained personnel, over 60 years combined experience in refrigeration and electrical field. Very complete shop. Investigation invited. BONDED REFRIGERATION SERVICE ASSOCIATES, Youngstown, Ohio.

### REPAIR SERVICE

FREE HERMETIC CATALOG complete with prices on refrigerator units, rebuilding and exchange service. General Electric, Westinghouse, Majestic, Frigidaire and a complete stock of Grunow compressors and parts. Immediate shipment. For your copy specify catalog A. SERVICE PARTS COMPANY, 1101-3 North 24th Avenue, Melrose Park, Illinois.

CONTROLS RECONDITIONED like new. Precision work by experts. "Years of Satisfied Customers," our motto. All work guaranteed for one year. Try us and be convinced of our unexcelled service. Special prices in quantity lots. For further information write: UNITED REPAIR CO., INC., 342 W. 70th St., New York City.

ATTENTION ALL Western States—Complete rebuild on all hermetics including G.E., Westinghouse, Majestic, etc. Give us your headaches, all work guaranteed. GALVIN REFRIGERATION ENGINEERS, 1734 University Ave., Berkeley, California.

CONTROL REPAIR service. Your controls repaired by expert mechanics, with special precision equipment. Supervised by graduate engineers. We stress perfection and dependability before price. One year guarantee on domestic controls. Any bellows operated device repaired. HALECTRIC LABORATORY, 1793 Lakeview Road, Cleveland, Ohio.

### PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

## SERVICE LETTERS

### Air Conditioning Units For Pleasure Cars

Esco Cabinet Co.  
West Chester, Pa.

Editor:

We want to secure information concerning an air conditioning outfit for automobiles. It occurs to us that we saw an advertisement or an article concerning such an outfit in a recent issue of REFRIGERATION NEWS, although we are unable to locate it.

We will very much appreciate it if you can send us the name and address of the manufacturer of such an outfit and any other information that you have.

ROBERT R. JAMISON

Answer: An air conditioning system that was developed for the Packard Motor Car Co. was described on pages 1 and 4 of the Nov. 8, 1939 issue, and a picture of it appears on page 8 of the Nov. 22 issue.

We understand that this apparatus is manufactured by the Bishop & Babcock Mfg. Co., 4901 Hamilton Ave., NE, Cleveland, Ohio.

### Service Information on Older Household Makes

600 Harwood St.  
Jackson, Mich.

Sirs:

Enclosing check for \$1.10 which I hope will cover mailing cost of sending me Master Service Manual on Household Refrigeration No. 4 covering the older refrigerators.

I have copy of Manual No. 3 and it is very satisfactory for some of the older makes on which data is rather hard to find.

J. G. STELZER

### Data on New Refrigerants

23 Waldron St.  
West Lafayette, Ind.

Editor:

Recently I wrote to the General Electric Appliance Co. regarding information and data on new types of refrigerants, which will aid me in writing a chemistry research paper.

They have written to me, however, and suggested that I write to you for the information I desire.

Any manuals or other information that you can send me regarding refrigeration will be greatly appreciated.

FRANK LANUTI

Answer: There is a great deal of up-to-date information about the principal refrigerants now in use in making refrigeration systems in Chapters 1 and 2 of Manual No. 1 of the Master Service Manuals on Household Refrigeration by K. M. Newcum.

### Air Conditioning Books

1905 Wilson Ave.  
Bristol, Pa.

Sirs:

Please send me one copy of your Air Conditioning Manuals A2, A4, A5, A6, and A7.

I enclose money order for \$5. I have your Master Service Manuals and think they are very helpful to me.

WALTER A. HENDRICKS

### Data Sought on Immiscible Refrigerants

Number 19 Jessie Apts.  
Winnipeg, Canada

Sirs:

I am conducting a series of experiments and wish to secure, if possible, two immiscible refrigerants, and inasmuch as The Matheson Co., East Rutherford, N. J., referred me to you I am taking this liberty of writing.

What I wish is: two gases suitable as refrigerants that do not chemically react in their gaseous or liquid state and are immiscible in their liquid state, or at the most only slightly soluble.

Would ammonia ( $NH_3$ ) and propane ( $C_2H_6$ ) satisfy the above conditions?

Any two gases that are suitable as refrigerants and conform to the above will be satisfactory.

Any information that you can give me will be greatly appreciated, also advise me as to the cost of obtaining such information in order that I can remit forthwith.

C. RAMSDEN

Answer: We have referred the question to one of the industry's specialists on the subject who answers as follows:

"The only mutually insoluble refrigerants are isobutane (or butane) and sulphur dioxide. These dissolve in each other to some extent but are not mutually miscible in all proportions."

tions. It is probable that other unsubstituted hydrocarbons, such as propane, would have solubility properties similar to those of isobutane.

"Water is not miscible with either the hydrocarbons or the halogenated hydrocarbons. However, there are considerable limitations to using water as a refrigerant.

"Ammonia is listed as being soluble in organic solvents and therefore is probably soluble in propane. We have no data bearing on this."

### Dallas Servicemen Banquet

DALLAS, Tex.—Official presentation of the charter of the new Lone Star chapter of the Refrigeration Service Engineers Society in Dallas, has been set for June 17, according to H. W. Cline, president. H. T. McDermott, national secretary of the association, then will be in Dallas to present the charter. A banquet will precede the ceremonies.

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Exposed to extremes of heat and cold; subjected to stresses far beyond the elastic limits of many metals, the fittings "Built Right to Stay Tight" must be made "wrench proof."

Commonwealth fittings of brass, hot forged for toughness and density, are capable of resisting the hardest usage, while performing perfectly, in their assigned locations.

Many factors contribute to the making of seepage-proof fittings, notably the acquired experience of the designers who have served the industry since its birth. Other values are accurate threads, seats, full openings, as well as protection from nicks and scars during shipping.

Refrigeration usage is tough service but Commonwealth fittings can take all the rough treatment and continue to serve the life of the unit.

Send for Catalog No. 38.

### COMMONWEALTH BRASS CORP.

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Hundreds of successful dealers.

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16th & Vine Sts., Phila., Pa.

## Crosley Glamorizes Presentation of New 'Glamor-Tone' Radios & Special Summer Sales Plans



(1) Banquet-table gossipers L. M. Krautter, Crosley advertising manager; R. H. Money, chief refrigeration engineer; G. T. Stevens, manager, refrigeration division; H. G. Little, Roy S. Durstine, Inc. advertising agency; Ray Clark, Crosley adver-

tising department. (2) Everyone has his own way of taking in a show. Left to right are Mr. Stevens; Neil Bauer, manager, distributor sales; W. M. Shipley, manager, major account sales; W. T. Wallace, manager, radio division; J. W.

Beckman, publicity director. (3) The show must really be good. Executives absorbed in the presentation are Powel Crosley, Jr., president; J. D. Shouse, vice president in charge of broadcasting; R. C. Cosgrove, vice president in

charge of manufacturing. (4) Between-the-scenes huddle by Bernadene Bayston, who manages the show troupe; L. M. Krautter, advertising manager; and T. W. Berger, general sales manager. (5) Pretty girls demonstrate pretty ranges.

(6) Delegations from Tenk Hardware Co., Quincy, Ill. Left to right are H. E. Drescher, Mr. Petrie, G. Anderson, F. B. Wensing, and C. E. Henderson. (7) In this group are, front row: George Miller of Crosley, E. C. White, Carolinas Auto Supply

House, Duey Long, WLW. Back row: E. H. Stedfeld, Crosley district manager; Messrs. Montgomery and Parks, Carolinas Auto Supply House; and Neil Bauer.

(8) The Crosleys, Powel, Jr. and Lewis, relax between the acts, their smiles indicating their pleasure in the proceedings. (9) Ray Cosgrove is in the middle of this discussion between Tom Berger and L. M. Krautter. (10) How the distributors first saw the new radio line, as the girls do their stuff.

### Rau Raps Floor-Plan Financing For Dealer, EHFA 'Competition'

(Concluded from Page 1, Column 5) also called attention to the increased amount of business being done by commercial banking institutions in their personal loan departments, and the fact that, in the nine years from 1929 to 1938, credit unions increased by four times the amount of loans to members.

"Out on the West Coast," he continued, "one large banking group has set up with a certain appliance manufacturer a deal under which retailers sell their refrigerator paper to the banks on the same basis as the old F.H.A. plan. This deal is different from the New York City cooperative arrangement, but even more vicious—because the dealer, the jobber, and the bank help share loss underwriting.

"In fact, even your money—assuming you are all taxpayers—is being used to encourage small retailers in the rural areas into the time-payment appliance business," Mr. Rau declared. I am referring now to the financing activities of Electric Home & Farm Authority, a division of the Rural Electrification Administration.

"Perhaps it's because of this increased competition, made possible by instalment financing from other sources, that stores in the instalment merchandising game are getting less sensible in the terms they themselves now offer. In Philadelphia, for instances, we are told that department stores, during semi-annual furniture sales, featured 'no money down' because they got the habit from trying to fight the gas utility on refrigerators.

"The vast majority of furniture stores do not feature 'no money down.' They may sell merchandise on that basis, they may advertise 'low weekly, or monthly, payments,' but only a few go to the extremes now being used by certain department stores.

"All of these extreme time-payment merchandising measures affect the cost of handling time sales. I urge your consideration of plans to keep instalment selling within safe and sensible limits."

The 1939 operating experiences survey conducted by National Retail Furniture Association, Mr. Rau said, clearly show that, at present trade-wide carrying charge rates of one-half of 1% per month on the balance after the down payment, furniture stores can't make any money.

One finance company buying paper from furniture dealers, he said, charges the retailer, on a non-recourse basis, the full carrying charge plus 5%.

"In other words," he declared, "the dealer gets in cash when he sells his furniture paper to this finance company, the balance due on the merchandise, exclusive of the carrying charge, minus an additional 5%.

"May we not assume that the usual carrying charge of one-half of 1% is—for finance companies—not sufficient, at least to the extent of

another 5% on the unpaid balance?" Instalment terms on mechanical refrigerators ranging all the way from 10% down and 12 months on the balance to a liberal extreme of no money down and three years to pay were reported by stores covered in the study of 1939 instalment practices made by the credit management division of National Retail Dry Goods Association.

Although typical down payments and terms on refrigerators were, in general, unchanged from those of 1939, with down payment being 10% and average terms 24 months, "conservative" stores dropped their down payment requirements from 20 to 10%, and increased terms from 10 to 12 months, the study reveals.

"Liberal" credit stores, however, continued to offer refrigerators, as well as electric and gas ranges, on terms of no money down and 36 months to pay. In general, range

### Recommendations

Recommendations made by the committee of National Retail Dry Goods Association credit men who conducted the study of department store instalment selling practices included:

1. Establishment of an adequate minimum for instalment purchases, a reasonable term of contract, and the abolition of "no down payment."

2. Establishment of carrying charge tables on a dollars and cents basis, in order that the customer may know exactly how much the finance charge is to be, and adoption of the term "service charge" instead of finance or carrying charge.

3. The charging of not more than  $\frac{1}{2}\%$  interest per month on unpaid delinquent balances, in addition to the original service charge, as an adequate return on invested capital.

4. Elimination of payment booklets and advance payment notices, as a means of cutting instalment sales costs, which, the study reveals, are in many instances unknown.

time payment terms were lengthened from 18 to 24 months, with the more conservative stores setting their maximum at 12 months, the same as for refrigerators.

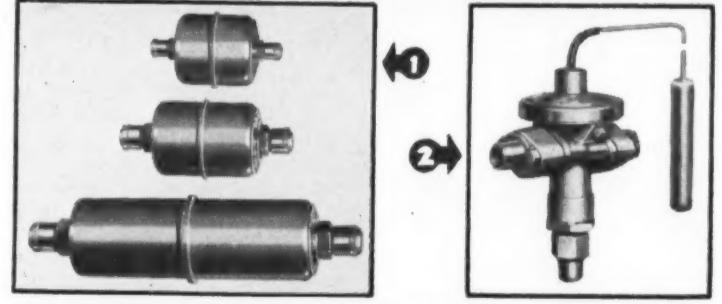
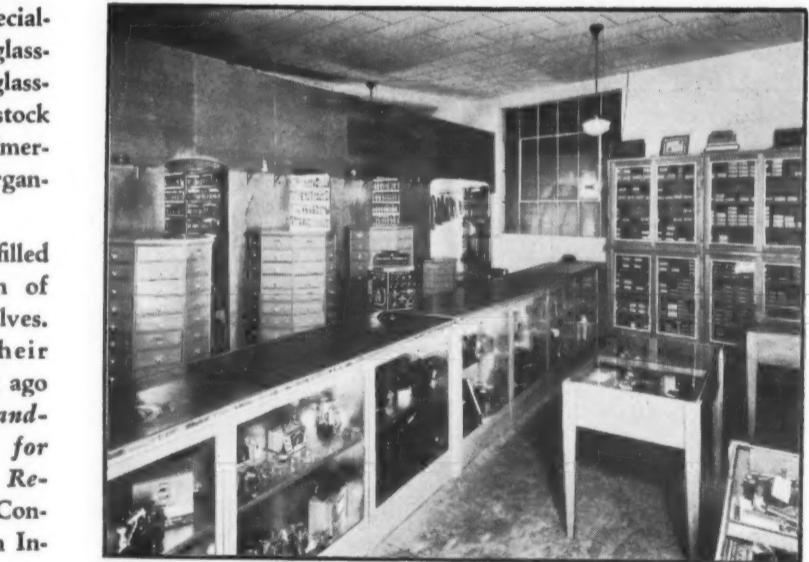
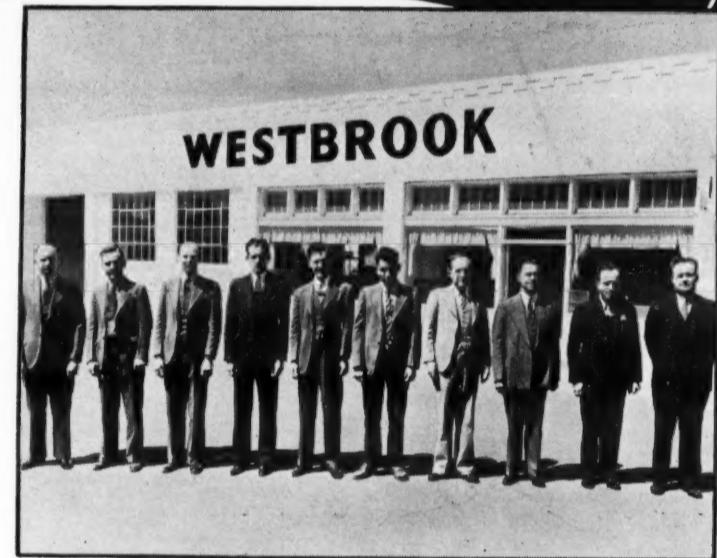
While some stores were dropping their down payment requirements on refrigerators and ranges, those applying to radios, phonographs, and other kitchen equipment were being raised from 20 to 25%, and terms on laundry equipment, in some instances, were being reduced from 12 to 10 months.

In the liberal terms group, most stores are apparently willing to forego a down payment, and offer terms of 36 months on all appliances except vacuum cleaners, sewing machines, and radios and phonographs.

Reporting the results of the survey, J. D. Kemper, credit sales manager of Mandel Bros., Chicago, declared that recently rumored "five years to pay" terms on mechanical refrigerators were erroneous.

"Some sales finance companies claim they have offered up to 36 months in response to a widespread consumer demand," he said, "but this is somewhat disproved by the fact that our member stores report that over 80% of their customers buy major appliances on terms of from 12 to 18 months, even though more liberal terms are available to them."

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